DECIBEL TABLES

AND

TABLES OF HYPERBOLIC FUNCTIONS

TABLE I
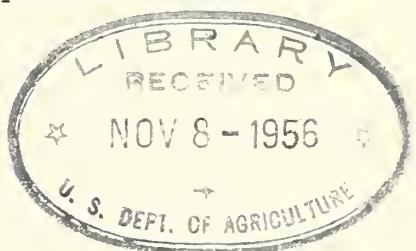
DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM .001 TO .509

$\frac{I_2}{I_1}$	.000	.001	.002	.003	.004	.005	.006	.007	.008	.009
.00	–	60.000	53.979	50.458	47.959	46.021	44.437	43.098	41.938	40.915
.01	40.000	39.172	38.416	37.721	37.077	36.478	35.918	35.391	34.895	34.425
.02	33.979	33.556	33.152	32.765	32.396	32.042	31.701	31.373	31.057	30.752
.03	30.458	30.173	29.897	29.630	29.370	29.119	28.874	28.636	28.404	28.179
.04	27.959	27.744	27.535	27.331	27.131	26.936	26.745	26.558	26.375	26.196
.05	26.021	25.849	25.680	25.514	25.352	25.193	25.036	24.883	24.731	24.583
.06	24.437	24.293	24.152	24.013	23.876	23.742	23.609	23.479	23.350	23.223
.07	23.098	22.975	22.853	22.734	22.615	22.499	22.384	22.270	22.158	22.047
.08	21.938	21.830	21.724	21.618	21.514	21.412	21.310	21.210	21.110	21.012
.09	20.915	20.819	20.724	20.630	20.537	20.446	20.355	20.265	20.175	20.087
.10	20.000	19.914	19.828	19.743	19.659	19.576	19.494	19.412	19.332	19.251
.11	19.172	19.094	19.016	18.938	18.862	18.786	18.711	18.636	18.562	18.489
.12	18.416	18.344	18.273	18.202	18.132	18.062	17.993	17.924	17.856	17.788
.13	17.721	17.655	17.589	17.523	17.458	17.393	17.329	17.266	17.202	17.140
.14	17.077	17.016	16.954	16.893	16.833	16.773	16.713	16.654	16.595	16.536
.15	16.478	16.420	16.363	16.306	16.250	16.193	16.138	16.082	16.027	15.972
.16	15.918	15.863	15.810	15.756	15.703	15.650	15.598	15.546	15.494	15.442
.17	15.391	15.340	15.289	15.239	15.189	15.139	15.090	15.041	14.992	14.943
.18	14.895	14.846	14.799	14.751	14.704	14.657	14.610	14.563	14.517	14.471
.19	14.425	14.379	14.334	14.289	14.244	14.199	14.155	14.111	14.067	14.023
.20	13.979	13.936	13.893	13.850	13.807	13.765	13.723	13.681	13.639	13.597
.21	13.556	13.514	13.473	13.432	13.392	13.351	13.311	13.271	13.231	13.191
.22	13.152	13.112	13.073	13.034	12.995	12.956	12.918	12.879	12.841	12.803
.23	12.765	12.728	12.690	12.653	12.616	12.579	12.542	12.505	12.468	12.432
.24	12.396	12.360	12.324	12.288	12.252	12.217	12.181	12.146	12.111	12.076
.25	12.041	12.007	11.972	11.938	11.903	11.869	11.835	11.801	11.768	11.734
.26	11.701	11.667	11.634	11.601	11.568	11.535	11.502	11.470	11.437	11.405
.27	11.373	11.341	11.309	11.277	11.245	11.213	11.182	11.150	11.119	11.088
.28	11.057	11.026	10.995	10.964	10.934	10.903	10.873	10.842	10.812	10.782
.29	10.752	10.722	10.692	10.663	10.633	10.604	10.574	10.545	10.516	10.486
.30	10.458	10.429	10.400	10.371	10.343	10.314	10.286	10.257	10.229	10.201
.31	10.173	10.145	10.117	10.089	10.061	10.034	10.006	9.979	9.951	9.924
.32	9.897	9.870	9.843	9.816	9.789	9.762	9.736	9.709	9.683	9.656
.33	9.630	9.603	9.577	9.551	9.525	9.499	9.473	9.447	9.422	9.396
.34	9.370	9.345	9.319	9.294	9.269	9.244	9.218	9.193	9.168	9.143
.35	9.119	9.094	9.069	9.045	9.020	8.995	8.971	8.947	8.922	8.898
.36	8.874	8.850	8.826	8.802	8.778	8.754	8.730	8.707	8.683	8.659
.37	8.636	8.613	8.589	8.566	8.543	8.519	8.496	8.473	8.450	8.427
.38	8.404	8.382	8.359	8.336	8.313	8.291	8.268	8.246	8.223	8.201
.39	8.179	8.156	8.134	8.112	8.090	8.068	8.046	8.024	8.002	7.981
.40	7.959	7.937	7.915	7.894	7.872	7.851	7.829	7.808	7.787	7.766
.41	7.744	7.723	7.702	7.681	7.660	7.639	7.618	7.597	7.576	7.556
.42	7.535	7.514	7.494	7.473	7.453	7.432	7.412	7.391	7.371	7.351
.43	7.331	7.310	7.290	7.270	7.250	7.230	7.210	7.190	7.171	7.151
.44	7.131	7.111	7.092	7.072	7.052	7.033	7.013	6.994	6.974	6.955
.45	6.936	6.916	6.897	6.878	6.859	6.840	6.821	6.802	6.783	6.764
.46	6.745	6.726	6.707	6.688	6.670	6.651	6.632	6.614	6.595	6.577
.47	6.558	6.540	6.521	6.503	6.484	6.466	6.448	6.430	6.411	6.393
.48	6.375	6.357	6.339	6.321	6.303	6.285	6.267	6.249	6.232	6.214
.49	6.196	6.178	6.161	6.143	6.125	6.108	6.090	6.073	6.055	6.038
.50	6.021	6.003	5.986	5.969	5.951	5.934	5.917	5.900	5.883	5.866

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM .510 TO .999

$\frac{I_2}{I_1}$	.000	.001	.002	.003	.004	.005	.006	.007	.008	.009
.51	5.849	5.832	5.815	5.798	5.781	5.764	5.747	5.730	5.713	5.697
.52	5.680	5.663	5.647	5.630	5.613	5.597	5.580	5.564	5.547	5.531
.53	5.514	5.498	5.482	5.465	5.449	5.433	5.417	5.401	5.384	5.368
.54	5.352	5.336	5.320	5.304	5.288	5.272	5.256	5.240	5.224	5.209
.55	5.193	5.177	5.161	5.145	5.130	5.114	5.098	5.083	5.067	5.052
.56	5.036	5.021	5.005	4.990	4.974	4.959	4.944	4.928	4.913	4.898
.57	4.883	4.867	4.852	4.837	4.822	4.807	4.792	4.776	4.761	4.746
.58	4.731	4.716	4.702	4.687	4.672	4.657	4.642	4.627	4.612	4.598
.59	4.583	4.568	4.554	4.539	4.524	4.510	4.495	4.481	4.466	4.451
.60	4.437	4.423	4.408	4.394	4.379	4.365	4.351	4.336	4.322	4.308
.61	4.293	4.279	4.265	4.251	4.237	4.222	4.208	4.194	4.180	4.166
.62	4.152	4.138	4.124	4.110	4.096	4.082	4.069	4.055	4.041	4.027
.63	4.013	3.999	3.986	3.972	3.958	3.945	3.931	3.917	3.904	3.890
.64	3.876	3.863	3.849	3.836	3.822	3.809	3.795	3.782	3.768	3.755
.65	3.742	3.728	3.715	3.702	3.688	3.675	3.662	3.649	3.635	3.622
.66	3.609	3.596	3.583	3.570	3.557	3.544	3.531	3.517	3.504	3.491
.67	3.479	3.466	3.453	3.440	3.427	3.414	3.401	3.388	3.375	3.363
.68	3.350	3.337	3.324	3.312	3.299	3.286	3.274	3.261	3.248	3.236
.69	3.223	3.210	3.198	3.185	3.173	3.160	3.148	3.135	3.123	3.110
.70	3.098	3.086	3.073	3.061	3.049	3.036	3.024	3.012	2.999	2.987
.71	2.975	2.963	2.950	2.938	2.926	2.914	2.902	2.890	2.878	2.865
.72	2.853	2.841	2.829	2.817	2.805	2.793	2.781	2.769	2.757	2.745
.73	2.734	2.722	2.710	2.698	2.686	2.674	2.662	2.651	2.639	2.627
.74	2.615	2.604	2.592	2.580	2.569	2.557	2.545	2.534	2.522	2.510
.75	2.499	2.487	2.476	2.464	2.453	2.441	2.430	2.418	2.407	2.395
.76	2.384	2.372	2.361	2.350	2.338	2.327	2.315	2.304	2.293	2.281
.77	2.270	2.259	2.248	2.236	2.225	2.214	2.203	2.192	2.180	2.169
.78	2.158	2.147	2.136	2.125	2.114	2.103	2.092	2.081	2.069	2.058
.79	2.047	2.036	2.025	2.015	2.004	1.993	1.982	1.971	1.960	1.949
.80	1.938	1.927	1.917	1.906	1.895	1.884	1.873	1.863	1.852	1.841
.81	1.830	1.820	1.809	1.798	1.788	1.777	1.766	1.756	1.745	1.734
.82	1.724	1.713	1.703	1.692	1.681	1.671	1.660	1.650	1.639	1.629
.83	1.618	1.608	1.598	1.587	1.577	1.566	1.556	1.545	1.535	1.525
.84	1.514	1.504	1.494	1.483	1.473	1.463	1.453	1.442	1.432	1.422
.85	1.412	1.401	1.391	1.381	1.371	1.361	1.351	1.340	1.330	1.320
.86	1.310	1.300	1.290	1.280	1.270	1.260	1.250	1.240	1.230	1.220
.87	1.210	1.200	1.190	1.180	1.170	1.160	1.150	1.140	1.130	1.120
.88	1.110	1.100	1.091	1.081	1.071	1.061	1.051	1.042	1.032	1.022
.89	1.012	1.002	.993	.983	.973	.964	.954	.944	.934	.925
.90	.915	.906	.896	.886	.877	.867	.857	.848	.838	.829
.91	.819	.810	.800	.791	.781	.772	.762	.753	.743	.734
.92	.724	.715	.705	.696	.687	.677	.668	.658	.649	.640
.93	.630	.621	.612	.602	.593	.584	.574	.565	.556	.547
.94	.537	.528	.519	.510	.501	.491	.482	.473	.464	.455
.95	.446	.436	.427	.418	.409	.400	.391	.382	.373	.364
.96	.355	.346	.336	.327	.318	.309	.300	.291	.282	.274
.97	.265	.256	.247	.238	.229	.220	.211	.202	.193	.184
.98	.175	.167	.158	.149	.140	.131	.122	.114	.105	.096
.99	.087	.079	.070	.061	.052	.044	.035	.026	.017	.009

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 1.00 TO 5.99

$\frac{I_1}{I_2}$	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
1.0	.00	.086	.172	.257	.341	.424	.506	.588	.668	.749
1.1	.828	.906	.984	1.062	1.138	1.214	1.289	1.364	1.438	1.511
1.2	1.584	1.656	1.727	1.798	1.868	1.938	2.007	2.076	2.144	2.212
1.3	2.279	2.345	2.411	2.477	2.542	2.607	2.671	2.734	2.798	2.860
1.4	2.923	2.984	3.046	3.107	3.167	3.227	3.287	3.346	3.405	3.464
1.5	3.522	3.580	3.637	3.694	3.750	3.807	3.862	3.918	3.973	4.028
1.6	4.082	4.137	4.190	4.244	4.297	4.350	4.402	4.454	4.506	4.558
1.7	4.609	4.660	4.711	4.761	4.811	4.861	4.910	4.959	5.008	5.057
1.8	5.105	5.154	5.201	5.249	5.296	5.343	5.390	5.437	5.483	5.529
1.9	5.575	5.621	5.666	5.711	5.756	5.801	5.845	5.889	5.933	5.977
2.0	6.021	6.064	6.107	6.150	6.193	6.235	6.277	6.319	6.361	6.403
2.1	6.444	6.486	6.527	6.568	6.608	6.649	6.689	6.729	6.769	6.809
2.2	6.848	6.888	6.927	6.966	7.005	7.044	7.082	7.121	7.159	7.197
2.3	7.235	7.272	7.310	7.347	7.384	7.421	7.458	7.495	7.532	7.568
2.4	7.604	7.640	7.676	7.712	7.748	7.783	7.819	7.854	7.889	7.924
2.5	7.959	7.993	8.028	8.062	8.097	8.131	8.165	8.199	8.232	8.266
2.6	8.299	8.333	8.366	8.399	8.432	8.465	8.498	8.530	8.563	8.595
2.7	8.627	8.659	8.691	8.723	8.755	8.787	8.818	8.850	8.881	8.912
2.8	8.943	8.974	9.005	9.036	9.066	9.097	9.127	9.158	9.188	9.218
2.9	9.248	9.278	9.308	9.337	9.367	9.396	9.426	9.455	9.484	9.513
3.0	9.542	9.571	9.600	9.629	9.657	9.686	9.714	9.743	9.771	9.799
3.1	9.827	9.855	9.883	9.911	9.939	9.966	9.994	10.021	10.049	10.076
3.2	10.103	10.130	10.157	10.184	10.211	10.238	10.264	10.291	10.317	10.344
3.3	10.370	10.397	10.423	10.449	10.475	10.501	10.527	10.553	10.578	10.604
3.4	10.630	10.655	10.681	10.706	10.731	10.756	10.782	10.807	10.832	10.857
3.5	10.881	10.906	10.931	10.955	10.980	11.005	11.029	11.053	11.078	11.102
3.6	11.126	11.150	11.174	11.198	11.222	11.246	11.270	11.293	11.317	11.341
3.7	11.364	11.387	11.411	11.434	11.457	11.481	11.504	11.527	11.550	11.573
3.8	11.596	11.618	11.641	11.664	11.687	11.709	11.732	11.754	11.777	11.799
3.9	11.821	11.844	11.866	11.888	11.910	11.932	11.954	11.976	11.998	12.019
4.0	12.041	12.063	12.085	12.106	12.128	12.149	12.171	12.192	12.213	12.234
4.1	12.256	12.277	12.298	12.319	12.340	12.361	12.382	12.403	12.424	12.444
4.2	12.465	12.486	12.506	12.527	12.547	12.568	12.588	12.609	12.629	12.649
4.3	12.669	12.690	12.710	12.730	12.750	12.770	12.790	12.810	12.829	12.849
4.4	12.869	12.889	12.908	12.928	12.948	12.967	12.987	13.006	13.026	13.045
4.5	13.064	13.084	13.103	13.122	13.141	13.160	13.179	13.198	13.217	13.236
4.6	13.255	13.274	13.293	13.312	13.330	13.349	13.368	13.386	13.405	13.423
4.7	13.442	13.460	13.479	13.497	13.516	13.534	13.552	13.570	13.589	13.607
4.8	13.625	13.643	13.661	13.679	13.697	13.715	13.733	13.751	13.768	13.786
4.9	13.804	13.822	13.839	13.857	13.875	13.892	13.910	13.927	13.945	13.962
5.0	13.979	13.997	14.014	14.031	14.049	14.066	14.083	14.100	14.117	14.134
5.1	14.151	14.168	14.185	14.202	14.219	14.236	14.253	14.270	14.287	14.303
5.2	14.320	14.337	14.353	14.370	14.387	14.403	14.420	14.436	14.453	14.469
5.3	14.486	14.502	14.518	14.535	14.551	14.567	14.583	14.599	14.616	14.632
5.4	14.648	14.664	14.680	14.696	14.712	14.728	14.744	14.760	14.776	14.791
5.5	14.807	14.823	14.839	14.855	14.870	14.886	14.902	14.917	14.933	14.948
5.6	14.964	14.979	14.995	15.010	15.026	15.041	15.056	15.072	15.087	15.102
5.7	15.117	15.133	15.148	15.163	15.178	15.193	15.208	15.224	15.239	15.254
5.8	15.269	15.284	15.298	15.313	15.328	15.343	15.358	15.373	15.388	15.402
5.9	15.417	15.432	15.446	15.461	15.476	15.490	15.505	15.519	15.534	15.549

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 6.00 TO 9.99

$\frac{I_1}{I_2}$	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
6.0	15.563	15.577	15.592	15.606	15.621	15.635	15.649	15.664	15.678	15.692
6.1	15.707	15.721	15.735	15.749	15.763	15.778	15.792	15.806	15.820	15.834
6.2	15.848	15.862	15.876	15.890	15.904	15.918	15.931	15.945	15.959	15.973
6.3	15.987	16.001	16.014	16.028	16.042	16.055	16.069	16.083	16.096	16.110
6.4	16.124	16.137	16.151	16.164	16.178	16.191	16.205	16.218	16.232	16.245
6.5	16.258	16.272	16.285	16.298	16.312	16.325	16.338	16.351	16.365	16.378
6.6	16.391	16.404	16.417	16.430	16.443	16.456	16.469	16.483	16.496	16.509
6.7	16.521	16.534	16.547	16.560	16.573	16.586	16.599	16.612	16.625	16.637
6.8	16.650	16.663	16.676	16.688	16.701	16.714	16.726	16.739	16.752	16.764
6.9	16.777	16.790	16.802	16.815	16.827	16.840	16.852	16.865	16.877	16.890
7.0	16.902	16.914	16.927	16.939	16.951	16.964	16.976	17.988	17.001	17.013
7.1	17.025	17.037	17.050	17.062	17.074	17.086	17.098	17.110	17.122	17.135
7.2	17.147	17.159	17.171	17.183	17.195	17.207	17.219	17.231	17.243	17.255
7.3	17.266	17.278	17.290	17.302	17.314	17.326	17.338	17.349	17.361	17.373
7.4	17.385	17.396	17.408	17.420	17.431	17.443	17.455	17.466	17.478	17.490
7.5	17.501	17.513	17.524	17.536	17.547	17.559	17.570	17.582	17.593	17.605
7.6	17.616	17.628	17.639	17.650	17.662	17.673	17.685	17.696	17.707	17.719
7.7	17.730	17.741	17.752	17.764	17.775	17.786	17.797	17.808	17.820	17.831
7.8	17.842	17.853	17.864	17.875	17.886	17.897	17.908	17.919	17.931	17.942
7.9	17.953	17.964	17.975	17.985	17.996	18.007	18.018	18.029	18.040	18.051
8.0	18.062	18.073	18.083	18.094	18.105	18.116	18.127	18.137	18.148	18.159
8.1	18.170	18.180	18.191	18.202	18.212	18.223	18.234	18.244	18.255	18.266
8.2	18.276	18.287	18.297	18.308	18.319	18.329	18.340	18.350	18.361	18.371
8.3	18.382	18.392	18.402	18.413	18.423	18.434	18.444	18.455	18.465	18.475
8.4	18.486	18.496	18.506	18.517	18.527	18.537	18.547	18.558	18.568	18.578
8.5	18.588	18.599	18.609	18.619	18.629	18.639	18.649	18.660	18.670	18.680
8.6	18.690	18.700	18.710	18.720	18.730	18.740	18.750	18.760	18.770	18.780
8.7	18.790	18.800	18.810	18.820	18.830	18.840	18.850	18.860	18.870	18.880
8.8	18.890	18.900	18.909	18.919	18.929	18.939	17.949	18.958	18.968	18.978
8.9	18.988	18.998	19.007	19.017	19.027	19.036	19.046	19.056	19.066	19.075
9.0	19.085	19.094	19.104	19.114	19.123	19.133	19.143	19.152	19.162	19.171
9.1	19.181	19.190	19.200	19.209	19.219	19.228	19.238	19.247	19.257	19.266
9.2	19.276	19.285	19.295	19.304	19.313	19.323	19.332	19.342	19.351	19.360
9.3	19.370	19.379	19.388	19.398	19.407	19.416	19.426	19.435	19.444	19.453
9.4	19.463	19.472	19.481	19.490	19.499	19.509	19.518	19.527	19.536	19.545
9.5	19.554	19.564	19.573	19.582	19.591	19.600	19.609	19.618	19.627	19.636
9.6	19.645	19.654	19.664	19.673	19.682	19.691	19.700	19.709	19.718	19.726
9.7	19.735	19.744	19.753	19.762	19.771	19.780	19.789	19.798	19.807	19.816
9.8	19.825	19.833	19.842	19.851	19.860	19.869	19.878	19.886	19.895	19.904
9.9	19.913	19.921	19.930	19.939	19.948	19.956	19.965	19.974	19.983	19.991

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 10.0 TO 59.9

$\frac{I_1}{I_2}$	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
10	20.000	20.086	20.172	20.257	20.341	20.424	20.506	20.588	20.668	20.749
11	20.828	20.906	20.984	21.062	21.138	21.214	21.289	21.364	21.438	21.511
12	21.584	21.656	21.727	21.798	21.868	21.938	22.007	22.076	22.144	22.212
13	22.279	22.345	22.411	22.477	22.542	22.607	22.671	22.734	22.798	22.860
14	22.923	22.984	23.046	23.107	23.167	23.227	23.287	23.346	23.405	23.464
15	23.522	23.580	23.637	23.694	23.750	23.807	23.862	23.918	23.973	24.028
16	24.082	24.137	24.190	24.244	24.297	24.350	24.402	24.454	24.506	24.558
17	24.609	24.660	24.711	24.761	24.811	24.861	24.910	24.959	25.008	25.057
18	25.105	25.154	25.201	25.249	25.296	25.343	25.390	25.437	25.483	25.529
19	25.575	25.621	25.666	25.711	25.756	25.801	25.845	25.889	25.933	25.977
20	26.021	26.064	26.107	26.150	26.193	26.235	26.277	26.319	26.361	26.403
21	26.444	26.486	26.527	26.568	26.608	26.649	26.689	26.729	26.769	26.809
22	26.848	26.888	26.927	26.966	27.005	27.044	27.082	27.121	27.159	27.197
23	27.235	27.272	27.310	27.347	27.384	27.421	27.458	27.495	27.532	27.568
24	27.604	27.640	27.676	27.712	27.748	27.783	27.819	27.854	27.889	27.924
25	27.959	27.993	28.028	28.062	28.097	28.131	28.165	28.199	28.232	28.266
26	28.299	28.333	28.366	28.399	28.432	28.465	28.498	28.530	28.563	28.595
27	28.627	28.659	28.691	28.723	28.755	28.787	28.818	28.850	28.881	28.912
28	28.943	28.974	29.005	29.036	29.066	29.097	29.127	29.158	29.188	29.218
29	29.248	29.278	29.308	29.337	29.367	29.396	29.426	29.455	29.484	29.513
30	29.542	29.571	29.600	29.629	29.657	29.686	29.714	29.743	29.771	29.799
31	29.827	29.855	29.883	29.911	29.939	29.966	29.994	30.021	30.049	30.076
32	30.103	30.130	30.157	30.184	30.211	30.238	30.264	30.291	30.317	30.344
33	30.370	30.397	30.423	30.449	30.475	30.501	30.527	30.553	30.578	30.604
34	30.630	30.655	30.681	30.706	30.731	30.756	30.782	30.807	30.832	30.857
35	30.881	30.906	30.931	30.955	30.980	31.005	31.029	31.053	31.078	31.102
36	31.126	31.150	31.174	31.198	31.222	31.246	31.270	31.293	31.317	31.341
37	31.364	31.387	31.411	31.434	31.457	31.481	31.504	31.527	31.550	31.573
38	31.596	31.618	31.641	31.664	31.687	31.709	31.732	31.754	31.777	31.799
39	31.821	31.844	31.866	31.888	31.910	31.932	31.954	31.976	31.998	32.019
40	32.041	32.063	32.085	32.106	32.128	32.149	32.171	32.192	32.213	32.234
41	32.256	32.277	32.298	32.319	32.340	32.361	32.382	32.403	32.424	32.444
42	32.465	32.486	32.506	32.527	32.547	32.568	32.588	32.609	32.629	32.649
43	32.669	32.690	32.710	32.730	32.750	32.770	32.790	32.810	32.829	32.849
44	32.869	32.889	32.908	32.928	32.948	32.967	32.987	33.006	33.026	33.045
45	33.064	33.084	33.103	33.122	33.141	33.160	33.179	33.198	33.217	33.236
46	33.255	33.274	33.293	33.312	33.330	33.349	33.368	33.386	33.406	33.423
47	33.442	33.460	33.479	33.497	33.516	33.534	33.552	33.570	33.589	33.607
48	33.625	33.643	33.661	33.679	33.697	33.715	33.733	33.751	33.768	33.786
49	33.804	33.822	33.839	33.857	33.875	33.892	33.910	33.927	33.945	33.962
50	33.979	33.997	34.014	34.031	34.049	34.066	34.083	34.100	34.117	34.134
51	34.151	34.168	34.185	34.202	34.219	34.236	34.253	34.270	34.287	34.303
52	34.320	34.337	34.353	34.370	34.387	34.403	34.420	34.436	34.453	34.469
53	34.486	34.502	34.518	34.535	34.551	34.567	34.583	34.599	34.616	34.632
54	34.648	34.664	34.680	34.696	34.712	34.728	34.744	34.760	34.776	34.791
55	34.807	34.823	34.839	34.855	34.870	34.886	34.902	34.917	34.933	34.948
56	34.964	34.979	34.995	35.010	35.026	35.041	35.056	35.072	35.087	35.102
57	35.117	35.133	35.148	35.163	35.178	35.193	35.208	35.224	35.239	35.254
58	35.269	35.284	35.298	35.313	35.328	35.343	35.358	35.373	35.388	35.402
59	35.417	35.432	35.446	35.461	35.476	35.490	35.505	35.519	35.534	35.549

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 60.0 TO 99.9

$\frac{I_1}{I_2}$	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
60	35.563	35.577	35.592	35.606	35.621	35.635	35.649	35.664	35.678	35.692
61	35.707	35.721	35.735	35.749	35.763	35.778	35.792	35.806	35.820	35.834
62	35.848	35.862	35.876	35.890	35.904	35.918	35.931	35.945	35.959	35.973
63	35.987	36.001	36.014	36.028	35.042	36.055	36.069	36.083	36.096	36.110
64	36.124	36.137	36.151	36.164	36.178	36.191	36.205	36.218	36.232	36.245
65	36.258	36.272	36.285	36.298	36.312	36.325	36.338	36.351	36.365	36.378
66	36.391	36.404	36.417	36.430	36.443	36.456	36.469	36.483	36.496	36.509
67	36.521	36.534	36.547	36.560	36.573	36.586	36.599	36.612	36.625	36.637
68	36.650	36.663	36.676	36.688	36.701	36.714	36.726	36.739	36.752	36.764
69	36.777	36.790	36.802	36.815	36.827	36.840	36.852	36.865	36.877	36.890
70	36.902	36.914	36.927	36.939	36.951	36.964	36.976	36.988	37.001	37.013
71	37.025	37.037	37.050	37.062	37.074	37.086	37.098	37.110	37.122	37.135
72	37.147	37.159	37.171	37.183	37.195	37.207	37.219	37.231	37.243	37.255
73	37.266	37.278	37.290	37.302	37.314	37.326	37.338	37.349	37.361	37.373
74	37.385	37.396	37.408	37.420	37.431	37.443	37.455	37.466	37.478	37.490
75	37.501	37.513	37.524	37.536	37.547	37.559	37.570	37.582	37.593	37.605
76	37.616	37.628	37.639	37.650	37.662	37.673	37.685	37.696	37.707	37.719
77	37.730	37.741	37.752	37.764	37.775	37.786	37.797	37.808	37.820	37.831
78	37.842	37.853	37.864	37.875	37.886	37.897	37.908	37.919	37.931	37.942
79	37.953	37.964	37.975	37.985	37.996	38.007	38.018	38.029	38.040	38.051
80	38.062	38.073	38.083	38.094	38.105	38.116	38.127	38.137	38.148	38.159
81	38.170	38.180	38.191	38.202	38.212	38.223	38.234	38.244	38.255	38.266
82	38.276	38.287	38.297	38.308	38.319	38.329	38.340	38.350	38.361	38.371
83	38.382	38.392	38.402	38.413	38.423	38.434	38.444	38.455	38.465	38.475
84	38.486	38.496	38.506	38.517	38.527	38.537	38.547	38.558	38.568	38.578
85	38.588	38.599	38.609	38.619	38.629	38.639	38.649	38.660	38.670	38.680
86	38.690	38.700	38.710	38.720	38.730	38.740	38.750	38.760	38.770	38.780
87	38.790	38.800	38.810	38.820	38.830	38.840	38.850	38.860	38.870	38.880
88	38.890	38.900	38.909	38.919	38.929	38.939	38.949	38.958	38.968	38.978
89	38.988	38.998	39.007	39.017	39.027	39.036	39.046	39.056	39.066	39.075
90	39.085	39.094	39.104	39.114	39.123	39.133	39.143	39.152	39.162	39.171
91	39.181	39.190	39.200	39.209	39.219	39.228	39.238	39.247	39.257	39.266
92	39.276	39.285	39.295	39.304	39.313	39.323	39.332	39.342	39.351	39.360
93	39.370	39.379	39.388	39.398	39.407	39.416	39.426	39.435	39.444	39.453
94	39.463	39.472	39.481	39.490	39.499	39.509	39.518	39.527	39.536	39.545
95	39.554	39.564	39.573	39.582	39.591	39.600	39.609	39.618	39.627	39.636
96	39.645	39.654	39.664	39.673	39.682	39.691	39.700	39.709	39.718	39.726
97	39.735	39.744	39.753	39.762	39.771	39.780	39.789	39.798	39.807	39.816
98	39.825	39.833	39.842	39.851	39.860	39.869	39.878	39.886	39.895	39.904
99	39.913	39.921	39.930	39.939	39.948	39.956	39.965	39.974	39.983	39.991

NOTE: The number of decibels corresponding to larger values of current
ratios than are given in this table may be readily obtained by
remembering that each time a current ratio is multiplied by the
factor 10, the corresponding number of decibels is increased by
20. For example, a current ratio of 601 corresponds to 55.577
decibels.

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 100 TO 599

$\frac{I_1}{I_2}$	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.
10	40.000	40.086	40.172	40.257	40.341	40.424	40.506	40.588	40.668	40.749
11	40.828	40.906	40.984	41.062	41.138	41.214	41.289	41.364	41.438	41.511
12	41.584	41.656	41.727	41.798	41.868	41.938	42.007	42.076	42.144	42.212
13	42.279	42.345	42.411	42.477	42.542	42.607	42.671	42.734	42.798	42.860
14	42.923	42.984	43.046	43.107	43.167	43.227	43.287	43.346	43.405	43.464
15	43.522	43.580	43.637	43.694	43.750	43.807	43.862	43.918	43.973	44.028
16	44.082	44.137	44.190	44.244	44.297	44.350	44.402	44.454	44.506	44.558
17	44.609	44.660	44.711	44.761	44.811	44.861	44.910	44.959	45.008	45.057
18	45.105	45.154	45.201	45.249	45.296	45.343	45.390	45.437	45.483	45.529
19	45.575	45.621	45.666	45.711	45.756	45.801	45.845	45.889	45.933	45.977
20	46.021	46.064	46.107	46.150	46.193	46.235	46.277	46.319	46.361	46.403
21	46.444	46.486	46.527	46.568	46.608	46.649	46.689	46.729	46.769	46.809
22	46.848	46.888	46.927	46.966	47.005	47.044	47.082	47.121	47.159	47.197
23	47.235	47.272	47.310	47.347	47.384	47.421	47.458	47.495	47.532	47.568
24	47.604	47.640	47.676	47.712	47.748	47.783	47.819	47.854	47.889	47.924
25	47.959	47.993	48.028	48.062	48.097	48.131	48.165	48.199	48.232	48.266
26	48.299	48.333	48.366	48.399	48.432	48.465	48.498	48.530	48.563	48.595
27	48.627	48.659	48.691	48.723	48.755	48.787	48.818	48.850	48.881	48.912
28	48.943	48.974	49.005	49.036	49.066	49.097	49.127	49.158	49.188	49.218
29	49.248	49.278	49.308	49.337	49.367	29.396	49.426	49.455	49.484	49.513
30	49.542	49.571	49.600	49.629	49.657	49.686	49.714	49.743	49.771	49.799
31	49.827	49.855	49.883	49.911	49.939	49.966	49.994	50.021	50.049	50.076
32	50.105	50.130	50.157	50.184	50.211	50.238	50.264	50.291	50.317	50.344
33	50.370	50.397	50.423	50.449	50.475	50.501	50.527	50.553	50.578	50.604
34	50.630	50.655	50.681	50.706	50.731	50.756	50.782	50.807	50.832	50.857
35	50.881	50.906	50.931	50.955	50.980	51.005	51.029	51.053	51.078	51.102
36	51.126	51.150	51.174	51.198	51.222	51.246	51.270	51.293	51.317	51.341
37	51.364	51.387	51.411	51.434	51.457	51.481	51.504	51.527	51.550	51.573
38	51.596	51.618	51.641	51.664	51.687	51.709	51.732	51.754	51.777	51.799
39	51.821	51.844	51.866	51.888	51.910	51.932	51.954	51.976	51.998	52.019
40	52.041	52.063	52.085	52.106	52.128	52.149	52.171	52.192	52.213	52.234
41	52.256	52.277	52.298	52.319	52.340	52.361	52.382	52.403	52.424	52.444
42	52.465	52.486	52.506	52.527	52.547	52.568	52.588	52.609	52.629	52.649
43	52.669	52.690	52.710	52.730	52.750	52.770	52.790	52.810	52.829	52.849
44	52.869	52.889	52.908	52.928	52.948	52.967	52.987	53.006	53.026	53.045
45	53.064	53.084	53.103	53.122	53.141	53.160	53.179	53.198	53.217	53.236
46	53.255	53.274	53.293	53.312	53.330	53.349	53.368	53.386	53.405	53.423
47	53.442	53.460	53.479	53.497	53.515	53.534	53.552	53.570	53.589	53.607
48	53.625	53.643	53.661	53.679	53.697	53.715	53.733	53.751	53.768	53.786
49	53.804	53.822	53.839	53.857	53.875	53.892	53.910	53.927	53.945	53.962
50	53.979	53.997	54.014	54.031	54.049	54.066	54.083	54.100	54.117	54.134
51	54.151	54.168	54.185	54.202	54.219	54.236	54.253	54.270	54.287	54.303
52	54.320	54.337	54.353	54.370	54.387	54.403	54.420	54.436	54.453	54.469
53	54.486	54.502	54.518	54.535	54.551	54.567	54.583	54.599	54.616	54.632
54	54.648	54.664	54.680	54.696	54.712	54.728	54.744	54.760	54.776	54.791
55	54.807	54.823	54.839	54.855	54.870	54.886	54.902	54.917	54.933	54.948
56	54.964	54.979	54.995	55.010	55.026	55.041	55.056	55.072	55.087	55.102
57	55.117	55.133	55.148	55.163	55.178	55.193	55.208	55.224	55.239	55.254
58	55.269	55.284	55.298	55.313	55.328	55.343	55.358	55.373	55.388	55.402
59	55.417	55.432	55.446	55.461	55.476	55.490	55.505	55.519	55.534	55.549

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 600 TO 999

$\frac{I_1}{I_2}$	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.
60	55.563	55.577	55.592	55.606	55.621	55.635	55.649	55.664	55.678	55.692
61	55.707	55.721	55.735	55.749	55.763	55.778	55.792	55.806	55.820	55.834
62	55.848	55.862	55.876	55.890	55.904	55.918	55.931	55.945	55.959	55.973
63	55.987	56.001	56.014	56.028	55.042	56.055	56.069	56.083	56.096	56.110
64	56.124	56.137	56.151	56.164	56.178	56.191	56.205	56.218	56.232	56.245
65	56.258	56.272	56.285	56.298	56.312	56.325	56.338	56.351	56.365	56.378
66	56.391	56.404	56.417	56.430	56.443	56.456	56.469	56.483	56.496	56.509
67	56.521	56.534	56.547	56.560	56.573	56.586	56.599	56.612	56.625	56.637
68	56.650	56.663	56.676	56.688	56.701	56.714	56.726	56.739	56.752	56.764
69	56.777	56.790	56.802	56.815	56.827	56.840	56.852	56.865	56.877	56.890
70	56.902	56.914	56.927	56.939	56.951	56.964	56.976	56.988	57.001	57.013
71	57.025	57.037	57.050	57.062	57.074	57.086	57.098	57.110	57.122	57.135
72	57.147	57.159	57.171	57.183	57.195	57.207	57.219	57.231	57.243	57.255
73	57.266	57.278	57.290	57.302	57.314	57.326	57.338	57.349	57.361	57.373
74	57.385	57.396	57.408	57.420	57.431	57.443	57.455	57.466	57.478	57.490
75	57.501	57.513	57.524	57.536	57.547	57.559	57.570	57.582	57.593	57.605
76	57.616	57.628	57.639	57.650	57.662	57.673	57.685	57.696	57.707	57.719
77	57.730	57.741	57.752	57.764	57.775	57.786	57.797	57.808	57.820	57.831
78	57.842	57.853	57.864	57.875	57.886	57.897	57.908	57.919	57.931	57.942
79	57.953	57.964	57.975	57.985	57.996	58.007	58.018	58.029	58.040	58.051
80	58.062	58.073	58.083	58.094	58.105	58.116	58.127	58.137	58.148	58.159
81	58.170	58.180	58.191	58.202	58.212	58.223	58.234	58.244	58.255	58.266
82	58.276	58.287	58.297	58.308	58.319	58.329	58.340	58.350	58.361	58.371
83	58.382	58.392	58.402	58.413	58.423	58.434	58.444	58.455	58.465	58.475
84	58.486	58.496	58.506	58.517	58.527	58.537	58.547	58.558	58.568	58.578
85	58.588	58.599	58.609	58.619	58.629	58.639	58.649	58.660	58.670	58.680
86	58.690	58.700	58.710	58.720	58.730	58.740	58.750	58.760	58.770	58.780
87	58.790	58.800	58.810	58.820	58.830	58.840	58.850	58.860	58.870	58.880
88	58.890	58.900	58.909	58.919	58.929	58.939	58.949	58.958	58.968	58.978
89	58.988	58.998	59.007	59.017	59.027	59.036	59.046	59.056	59.066	59.075
90	59.085	59.094	59.104	59.114	59.123	59.133	59.143	59.152	59.162	59.171
91	59.181	59.190	59.200	59.209	59.219	59.228	59.238	59.247	59.257	59.266
92	59.276	59.285	59.295	59.304	59.313	59.323	59.332	59.342	59.351	59.360
93	59.370	59.379	59.388	59.398	59.407	59.416	59.426	59.435	59.444	59.453
94	59.463	59.472	59.481	59.490	59.499	59.509	59.518	59.527	59.536	59.545
95	59.554	59.564	59.573	59.582	59.591	59.600	59.609	59.618	59.627	59.636
96	59.645	59.654	59.664	59.673	59.682	59.691	59.700	59.709	59.718	59.726
97	59.735	59.744	59.753	59.762	59.771	59.780	59.789	59.798	59.807	59.816
98	59.825	59.833	59.842	59.851	59.860	59.869	59.878	59.886	59.895	59.904
99	59.913	59.921	59.930	59.939	59.948	59.956	59.965	59.974	59.983	59.991

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 1,000 TO 5,990

$\frac{I_1}{I_2}$	00.	10.	20.	30.	40.	50.	60.	70.	80.	90.
10	60.000	60.086	60.172	60.257	60.341	60.424	60.506	60.588	60.668	60.749
11	60.828	60.906	60.984	61.062	61.138	61.214	61.289	61.364	61.438	61.511
12	61.584	61.656	61.727	61.798	61.868	61.938	62.007	62.076	62.144	62.212
13	62.279	62.345	62.411	62.477	62.542	62.607	62.671	62.734	62.798	62.860
14	62.923	62.984	63.046	63.107	63.167	63.227	63.287	63.346	63.405	63.464
15	63.522	63.580	63.637	63.694	63.750	63.807	63.862	63.918	63.973	64.028
16	64.082	64.137	64.190	64.244	64.297	64.350	64.402	64.454	64.506	64.558
17	64.609	64.660	64.711	64.761	64.811	64.861	64.910	64.959	65.008	65.057
18	65.105	65.154	65.201	65.249	65.296	65.343	65.390	65.437	65.483	65.529
19	65.575	65.621	65.666	65.711	65.756	65.801	65.845	65.889	65.933	65.977
20	66.021	66.064	66.107	66.150	66.193	66.235	66.277	66.319	66.361	66.403
21	66.444	66.486	66.527	66.568	66.608	66.649	66.689	66.729	66.769	66.809
22	66.848	66.888	66.927	66.966	67.005	67.044	67.082	67.121	67.159	67.197
23	67.235	67.272	67.310	67.347	67.384	67.421	67.458	67.495	67.532	67.568
24	67.604	67.640	67.676	67.712	67.748	67.783	67.819	67.854	67.889	67.924
25	67.959	67.993	68.028	68.062	68.097	68.131	68.165	68.199	68.232	68.266
26	68.299	68.333	68.366	68.399	68.432	68.465	68.498	68.530	68.563	68.595
27	68.627	68.659	68.691	68.723	68.755	68.787	68.818	68.850	68.881	68.912
28	68.943	68.974	69.005	69.036	69.066	69.097	69.127	69.158	69.188	69.218
29	69.248	69.278	69.308	69.337	69.367	69.396	69.426	69.455	69.484	69.513
30	69.542	69.571	69.600	69.629	69.657	69.686	69.714	69.743	69.771	69.799
31	69.827	69.855	69.883	69.911	69.939	69.966	69.994	70.021	70.049	70.076
32	70.103	70.130	70.157	70.184	70.211	70.238	70.264	70.291	70.317	70.344
33	70.370	70.397	70.423	70.449	70.475	70.501	70.527	70.553	70.578	70.604
34	70.630	70.655	70.681	70.706	70.731	70.756	70.782	70.807	70.832	70.857
35	70.881	70.906	70.931	70.955	70.980	71.005	71.029	71.053	71.078	71.102
36	71.126	71.150	71.174	71.198	71.222	71.246	71.270	71.293	71.317	71.341
37	71.364	71.387	71.411	71.434	71.457	71.481	71.504	71.527	71.550	71.573
38	71.596	71.618	71.641	71.664	71.687	71.709	71.732	71.754	71.777	71.799
39	71.821	71.844	71.866	71.888	71.910	71.932	71.954	71.976	71.998	72.019
40	72.041	72.063	72.085	72.106	72.128	72.149	72.171	72.192	72.213	72.234
41	72.256	72.277	72.298	72.319	72.340	72.361	72.382	72.403	72.424	72.444
42	72.465	72.486	72.506	72.527	72.547	72.568	72.588	72.609	72.629	72.649
43	72.669	72.690	72.710	72.730	72.750	72.770	72.790	72.810	72.829	72.849
44	72.869	72.889	72.908	72.928	72.948	72.967	72.987	73.006	73.026	73.045
45	73.064	73.084	73.103	73.122	73.141	73.160	73.179	73.198	73.217	73.236
46	73.255	73.274	73.293	73.312	73.330	73.349	73.368	73.386	73.405	73.423
47	73.442	73.460	73.479	73.497	73.516	73.534	73.552	73.570	73.589	73.607
48	73.625	73.643	73.661	73.679	73.697	73.715	73.733	73.751	73.768	73.786
49	73.804	73.822	73.839	73.857	73.875	73.892	73.910	73.927	73.945	73.962
50	73.979	73.997	74.014	74.031	74.049	74.066	74.083	74.100	74.117	74.134
51	74.151	74.168	74.185	74.202	74.219	74.236	74.253	74.270	74.287	74.303
52	74.320	74.337	74.353	74.370	74.387	74.403	74.420	74.436	74.453	74.469
53	74.486	74.502	74.518	74.535	74.551	74.567	74.583	74.599	74.616	74.632
54	74.648	74.664	74.680	74.696	74.712	74.728	74.744	74.760	74.776	74.791
55	74.807	74.823	74.839	74.855	74.870	74.886	74.902	74.917	74.933	74.948
56	74.964	74.979	74.995	75.010	75.026	75.041	75.056	75.072	75.087	75.102
57	75.117	75.133	75.148	75.163	75.178	75.193	75.208	75.224	75.239	75.254
58	75.269	75.284	75.298	75.313	75.328	75.343	75.358	75.373	75.388	75.402
59	75.417	75.432	75.446	75.461	75.476	75.490	75.505	75.519	75.534	75.549

- 11 -

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 6,000 TO 9,990

$\frac{I_1}{I_2}$	00.	10.	20.	30.	40.	50.	60.	70.	80.	90.
60	75.563	75.577	75.592	75.606	75.621	75.635	75.649	75.664	75.678	75.692
61	75.707	75.721	75.735	75.749	75.763	75.778	75.792	75.806	75.820	75.834
62	75.848	75.862	75.876	75.890	75.904	75.918	75.931	75.945	75.959	75.973
63	75.987	76.001	76.014	76.028	75.042	76.055	76.069	76.083	76.096	76.110
64	76.124	76.137	76.151	76.164	76.178	76.191	76.205	76.218	76.232	76.245
65	76.258	76.272	76.285	76.298	76.312	76.325	76.338	76.351	76.365	76.378
66	76.391	76.404	76.417	76.430	76.443	76.456	76.469	76.483	76.496	76.509
67	76.521	76.534	76.547	76.560	76.573	76.586	76.599	76.612	76.625	76.637
68	76.650	76.663	76.676	76.688	76.701	76.714	76.726	76.739	76.752	76.764
69	76.777	76.790	76.802	76.915	76.827	76.840	76.852	76.865	76.877	76.890
70	76.902	76.914	76.927	76.939	76.951	76.964	76.976	76.988	77.001	77.013
71	77.025	77.037	77.050	77.062	77.074	77.086	77.098	77.110	77.122	77.135
72	77.147	77.159	77.171	77.183	77.195	77.207	77.219	77.231	77.243	77.255
73	77.266	77.278	77.290	77.302	77.314	77.326	77.338	77.349	77.361	77.373
74	77.385	77.396	77.408	77.420	77.431	77.443	77.455	77.466	77.478	77.490
75	77.501	77.513	77.524	77.536	77.547	77.559	77.570	77.582	77.593	77.605
76	77.616	77.628	77.639	77.650	77.662	77.673	77.685	77.696	77.707	77.719
77	77.730	77.741	77.752	77.764	77.775	77.786	77.797	77.808	77.820	77.813
78	77.842	77.853	77.864	77.875	77.886	77.897	77.908	77.919	77.931	77.942
79	77.953	77.964	77.975	77.985	77.996	78.007	78.018	78.029	78.040	78.051
80	78.062	78.073	78.083	78.094	78.105	78.116	78.127	78.137	78.148	78.159
81	78.170	78.180	78.191	78.202	78.212	78.223	78.234	78.244	78.255	78.266
82	78.276	78.287	78.297	78.308	78.319	78.329	78.340	78.350	78.361	78.371
83	78.382	78.392	78.402	78.413	78.423	78.434	78.444	78.455	78.465	78.475
84	78.486	78.496	78.506	78.517	78.527	78.537	78.547	78.558	78.568	78.578
85	78.588	78.599	78.609	78.619	78.629	78.639	78.649	78.660	78.670	78.680
86	78.690	78.700	78.710	78.720	78.730	78.740	78.750	78.760	78.770	78.780
87	78.790	78.800	78.810	78.820	78.830	78.840	78.850	78.860	78.870	78.880
88	78.890	78.900	78.909	78.919	78.929	78.939	78.949	78.958	78.968	78.978
89	78.988	78.998	79.007	79.017	79.027	79.036	79.046	79.056	79.066	79.075
90	79.085	79.094	79.104	79.114	79.123	79.133	79.143	79.152	79.162	79.171
91	79.181	79.190	79.200	79.209	79.219	79.228	79.238	79.247	79.257	79.266
92	79.276	79.285	79.295	79.304	79.313	79.323	79.332	79.342	79.351	79.360
93	79.370	79.379	79.388	79.398	79.407	79.416	79.426	79.435	79.444	79.453
94	79.463	79.472	79.481	79.490	79.499	79.509	79.518	79.527	79.536	79.545
95	79.554	79.564	79.573	79.582	79.591	79.600	79.609	79.618	79.627	79.636
96	79.645	79.654	79.664	79.673	79.682	79.691	79.700	79.709	79.718	79.726
97	79.735	79.744	79.753	79.762	79.771	79.780	79.789	79.798	79.807	79.816
98	79.825	79.833	79.842	79.851	79.860	79.869	79.878	79.886	79.895	79.904
99	79.913	79.921	79.930	79.939	79.948	79.956	79.965	79.974	79.983	79.991

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 10,000 TO 59,900

$\frac{I_1}{I_2}$	000.	100.	200.	300.	400.	500.	600.	700.	800.	900.
10	80.000	80.086	80.172	80.257	80.341	80.424	80.506	80.588	80.668	80.749
11	80.828	80.906	80.984	81.062	81.138	81.214	81.289	81.364	81.438	81.511
12	81.584	81.656	81.727	81.798	81.868	81.938	82.007	82.076	82.144	82.212
13	82.279	82.345	82.411	82.477	82.542	82.607	82.671	82.734	82.798	82.860
14	82.923	82.984	83.046	83.107	83.167	83.227	83.287	83.346	83.405	83.464
15	83.522	83.580	83.637	83.694	83.750	83.807	83.862	83.918	83.973	84.028
16	84.082	84.137	84.190	84.244	84.297	84.350	84.402	84.454	84.506	84.558
17	84.609	84.660	84.711	84.761	84.811	84.861	84.910	84.959	85.008	85.057
18	85.105	85.154	85.201	85.249	85.296	85.343	85.390	85.437	85.483	85.529
19	85.575	85.621	85.666	85.711	85.756	85.801	85.845	85.889	85.933	85.977
20	86.021	86.064	86.107	86.150	86.193	86.235	86.277	86.319	86.361	86.403
21	86.444	86.486	86.527	86.568	86.608	86.649	86.689	86.729	86.769	86.809
22	86.848	86.888	86.927	86.966	87.005	87.044	87.082	87.121	87.159	87.197
23	87.235	87.272	87.310	87.347	87.384	87.421	87.458	87.495	87.532	87.568
24	87.604	87.640	87.676	87.712	87.748	87.783	87.819	87.854	87.889	87.924
25	87.959	87.993	88.028	88.062	88.097	88.131	88.165	88.199	88.232	88.266
26	88.299	88.333	88.366	88.399	88.432	88.465	88.498	88.530	88.563	88.595
27	88.627	88.659	88.691	88.723	88.755	88.787	88.818	88.850	88.881	88.912
28	88.943	88.974	89.005	89.036	89.066	89.097	89.127	89.158	89.188	89.218
29	89.248	89.278	89.308	89.337	89.367	89.396	89.426	89.455	89.484	89.513
30	89.542	89.571	89.600	89.629	89.657	89.686	89.714	89.743	89.771	89.799
31	89.827	89.855	89.883	89.911	89.939	89.966	89.994	90.021	90.049	90.076
32	90.103	90.130	90.157	90.184	90.211	90.238	90.264	90.291	90.317	90.344
33	90.370	90.397	90.423	90.449	90.475	90.501	90.527	90.553	90.578	90.604
34	90.630	90.655	90.681	90.706	90.731	90.756	90.782	90.807	90.832	90.857
35	90.881	90.906	90.931	90.955	90.980	91.005	91.029	91.053	91.078	91.102
36	91.126	91.150	91.174	91.198	91.222	91.246	91.270	91.293	91.317	91.341
37	91.364	91.387	91.411	91.434	91.457	91.481	91.504	91.527	91.550	91.573
38	91.596	91.618	91.641	91.664	91.687	91.709	91.732	91.754	91.777	91.799
39	91.821	91.844	91.866	91.888	91.910	91.932	91.954	91.976	91.998	92.019
40	92.041	92.063	92.085	92.106	92.128	92.149	92.171	92.192	92.213	92.234
41	92.256	92.277	92.298	92.319	92.340	92.361	92.382	92.403	92.424	92.444
42	92.465	92.486	92.506	92.527	92.547	92.568	92.588	92.609	92.629	92.649
43	92.669	92.690	92.710	92.730	92.750	92.770	92.790	92.810	92.829	92.849
44	92.869	92.889	92.908	92.928	92.948	92.967	92.987	93.006	93.026	93.045
45	93.064	93.084	93.103	93.122	93.141	93.160	93.179	93.198	93.217	93.236
46	93.255	93.274	93.293	93.312	93.330	93.349	93.368	93.386	93.405	93.423
47	93.442	93.460	93.479	93.497	93.516	93.534	93.552	93.570	93.589	93.607
48	93.625	93.643	93.661	93.679	93.697	93.715	93.733	93.751	93.768	93.786
49	93.804	93.822	93.839	93.857	93.875	93.892	93.910	93.927	93.945	93.962
50	93.979	93.997	94.014	94.031	94.049	94.066	94.083	94.100	94.117	94.134
51	94.151	94.168	94.185	94.202	94.219	94.236	94.253	94.270	94.287	94.303
52	94.320	94.337	94.353	94.370	94.387	94.403	94.420	94.436	94.453	94.469
53	94.486	94.502	94.518	94.535	94.551	94.567	94.583	94.599	94.616	94.632
54	94.648	94.664	94.680	94.696	94.712	94.728	94.744	94.760	94.776	94.791
55	94.807	94.823	94.839	94.855	94.870	94.886	94.902	94.917	94.933	94.948
56	94.964	94.979	94.995	95.010	95.026	95.041	95.056	95.072	95.087	95.102
57	95.117	95.133	95.148	95.163	95.178	95.193	95.208	95.224	95.239	95.254
58	95.269	95.284	95.298	95.313	95.328	95.343	95.358	95.373	95.388	95.402
59	95.417	95.432	95.446	95.461	95.476	95.490	95.505	95.519	95.534	95.549

TABLE I

DECIBELS CORRESPONDING TO CURRENT (OR VOLTAGE) RATIOS

FROM 60,000 TO 99,900

$\frac{I_1}{I_2}$	000.	100.	200.	300.	400.	500.	600.	700.	800.	900.
60	95.563	95.577	95.592	95.606	95.621	95.635	95.649	95.664	95.678	95.692
61	95.707	95.721	95.735	95.749	95.763	95.778	95.792	95.806	95.820	95.834
62	95.848	95.862	95.876	95.890	95.904	95.918	95.931	95.945	95.959	95.973
63	95.987	96.001	96.014	96.028	95.042	96.055	96.069	96.083	96.096	96.110
64	96.124	96.137	96.151	96.164	96.178	96.191	96.205	96.218	96.232	96.245
65	96.258	96.272	96.285	96.298	96.312	96.325	96.338	96.351	96.365	96.378
66	96.391	96.404	96.417	96.430	96.443	96.456	96.469	96.483	96.496	96.509
67	96.521	96.534	96.547	96.560	96.573	96.586	96.599	96.612	96.625	96.637
68	96.650	96.663	96.676	96.688	96.701	96.714	96.726	96.739	96.752	96.764
69	96.777	96.790	96.802	96.815	96.827	96.840	96.852	96.865	96.877	96.890
70	96.902	96.914	96.927	96.939	96.951	96.964	96.976	96.988	97.001	97.013
71	97.025	97.037	97.050	97.062	97.074	97.086	97.098	97.110	97.122	97.135
72	97.147	97.159	97.171	97.183	97.195	97.207	97.219	97.231	97.243	97.255
73	97.266	97.278	97.290	97.302	97.314	97.326	97.338	97.349	97.361	97.373
74	97.385	97.396	97.408	97.420	97.431	97.443	97.455	97.466	97.478	97.490
75	97.501	97.513	97.524	97.536	97.547	97.559	97.570	97.582	97.593	97.605
76	97.616	97.628	97.639	97.650	97.662	97.673	97.685	97.696	97.707	97.719
77	97.730	97.741	97.752	97.764	97.775	97.786	97.797	97.808	97.820	97.831
78	97.842	97.853	97.864	97.875	97.886	97.897	97.908	97.919	97.931	97.942
79	97.953	97.964	97.975	97.985	97.996	98.007	98.018	98.029	98.040	98.051
80	98.062	98.073	98.083	98.094	98.105	98.116	98.127	98.137	98.148	98.159
81	98.170	98.180	98.191	98.202	98.212	98.223	98.234	98.244	98.255	98.266
82	98.276	98.287	98.297	98.308	98.319	98.329	98.340	98.350	98.361	98.371
83	98.382	98.392	98.402	98.413	98.423	98.434	98.444	98.455	98.465	98.475
84	98.486	98.496	98.506	98.517	98.527	98.537	98.547	98.558	98.568	98.578
85	98.588	98.599	98.609	98.619	98.629	98.639	98.649	98.660	98.670	98.680
86	98.690	98.700	98.710	98.720	98.730	98.740	98.750	98.760	98.770	98.780
87	98.790	98.800	98.810	98.820	98.830	98.840	98.850	98.860	98.870	98.880
88	98.890	98.900	98.909	98.919	98.929	98.939	98.949	98.958	98.968	98.978
89	98.988	98.998	99.007	99.017	99.027	99.036	99.046	99.056	99.066	99.075
90	99.085	99.094	99.104	99.114	99.123	99.133	99.143	99.152	99.162	99.171
91	99.181	99.190	99.200	99.209	99.219	99.228	99.238	99.247	99.257	99.266
92	99.276	99.285	99.295	99.304	99.313	99.323	99.332	99.342	99.351	99.360
93	99.370	99.379	99.388	99.398	99.407	99.416	99.426	99.435	99.444	99.453
94	99.463	99.472	99.481	99.490	99.499	99.509	99.518	99.527	99.536	99.545
95	99.554	99.564	99.573	99.582	99.591	99.600	99.609	99.618	99.627	99.636
96	99.645	99.654	99.664	99.673	99.682	99.691	99.700	99.709	99.718	99.726
97	99.735	99.744	99.753	99.762	99.771	99.780	99.789	99.798	99.807	99.816
98	99.825	99.833	99.842	99.851	99.860	99.869	99.878	99.886	99.895	99.904
99	99.913	99.921	99.930	99.939	99.948	99.956	99.965	99.974	99.983	99.991

$\frac{I_1}{I_2}$	00000.	10000.	20000.	30000.	40000.	50000.	60000.	70000.	80000.	90000.
1	100.00	100.83	101.58	102.28	102.92	103.52	104.08	104.61	105.11	105.58
2	106.02	106.44	106.85	107.24	107.60	107.96	108.30	108.63	108.94	109.25
3	109.54	109.83	110.10	110.37	110.63	110.88	111.13	111.36	111.60	111.82
4	112.04	112.26	112.46	112.67	112.87	113.06	113.26	113.44	113.62	113.80
5	113.98	114.15	114.32	114.49	114.65	114.81	114.96	115.12	115.27	115.42
6	115.56	115.71	115.85	115.99	116.12	116.26	116.39	116.52	116.65	116.78
7	116.90	117.03	117.15	117.27	117.38	117.50	117.62	117.73	117.84	117.95
8	118.06	118.17	118.28	118.38	118.49	118.59	118.69	118.79	118.89	118.99
9	119.08	119.18	119.28	119.37	119.46	119.55	119.65	119.74	119.82	119.91
10	120.00	120.09	120.17	120.26	120.34	120.42	120.51	120.59	130.67	120.75
11	120.83	120.91	120.98	121.06	121.14	121.21	121.29	121.36	121.44	121.51
12	121.58	121.66	121.73	121.80	121.87	121.94	122.01	122.08	122.14	122.21
13	122.28	122.35	122.41	122.48	122.54	122.61	122.67	122.73	122.80	128.86
14	122.92	122.98	123.05	123.11	123.17	123.23	123.29	123.35	123.41	123.46
15	123.52	123.58	123.64	123.69	123.75	123.81	123.86	123.92	123.97	124.03
16	124.08	124.14	124.19	124.24	124.30	124.35	124.40	124.45	124.51	124.56
17	124.61	124.66	124.71	124.76	124.81	124.86	124.91	124.96	125.01	125.06
18	125.11	125.15	125.20	125.25	125.30	125.34	125.39	125.44	125.48	125.53
19	125.58	125.62	125.67	125.71	125.76	125.80	125.85	125.89	125.93	125.98
20	126.02	126.06	126.11	126.15	126.19	126.24	126.28	126.32	126.36	126.40
21	126.44	126.49	126.53	126.57	126.61	126.65	126.69	126.73	126.77	126.81
22	126.85	126.89	126.93	126.97	127.00	127.04	127.08	127.12	127.16	127.20
23	127.24	127.27	127.31	127.35	127.38	127.42	127.46	127.49	127.53	127.57
24	127.60	127.64	127.68	127.71	127.75	127.78	127.82	127.85	127.89	127.92
25	127.96	127.99	128.03	128.06	128.10	128.13	128.16	128.20	128.23	128.27
26	128.30	128.33	128.37	128.40	128.43	128.46	128.50	128.53	128.56	128.60
27	128.63	128.66	128.69	128.72	128.76	128.79	128.82	128.85	128.88	128.91
28	128.94	128.97	129.00	129.04	129.07	129.10	129.13	129.16	129.19	129.22
29	129.25	129.28	129.31	129.34	129.37	129.40	129.43	129.46	129.48	129.51
30	129.54	129.57	129.60	129.63	129.66	129.69	129.71	129.74	129.77	129.80
31	129.83	129.86	129.88	129.91	129.94	129.97	129.99	130.02	130.05	130.08
32	130.10	130.13	130.16	130.18	130.21	130.24	130.26	130.29	130.32	130.34
33	130.37	130.40	130.42	130.45	130.47	130.50	130.53	130.55	130.58	130.60
34	130.63	130.66	130.68	130.71	130.73	130.76	130.78	130.81	130.83	130.86
35	130.88	130.91	130.93	130.96	130.98	131.00	131.03	131.05	131.08	131.10
36	131.13	131.15	131.17	131.20	131.22	131.25	131.27	131.29	131.32	131.34
37	131.36	131.39	131.41	131.43	131.46	131.48	131.50	131.53	131.55	131.57
38	131.60	131.62	131.64	131.66	131.69	131.71	131.73	131.75	131.78	131.80
39	131.82	131.84	131.87	131.89	131.91	131.93	131.95	131.98	132.00	130.02
40	132.04	132.06	130.08	132.11	132.13	132.15	132.17	132.19	132.21	132.23
41	132.26	132.28	132.30	132.32	132.34	132.36	132.38	132.40	132.42	132.44
42	132.46	132.49	132.51	132.53	132.55	132.57	132.59	132.61	132.63	132.65
43	132.67	132.69	132.71	132.73	132.75	132.77	132.79	132.81	132.83	132.85
44	132.87	132.89	132.91	132.93	132.95	132.97	132.99	133.01	133.03	133.04
45	133.06	133.08	133.10	133.12	133.14	133.16	133.18	133.20	133.22	133.24
46	133.26	133.27	133.29	133.31	133.33	133.35	133.37	133.39	133.40	133.42
47	133.44	133.46	133.48	133.50	133.52	133.53	133.55	133.57	133.59	133.61
48	133.62	133.64	133.66	133.68	133.70	133.71	133.73	133.75	133.77	133.79
49	133.80	133.82	133.84	133.86	133.87	133.89	133.91	133.93	133.94	133.96
50	133.98	134.00	134.01	134.03	134.05	134.07	134.08	134.10	134.12	134.13
51	134.15	134.17	134.19	134.20	134.22	134.24	134.25	134.27	134.29	134.30
52	134.32	134.34	134.35	134.37	134.39	134.40	134.42	134.44	134.45	134.47
53	134.49	134.50	134.52	134.53	134.55	134.57	134.58	134.60	134.62	134.63
54	134.65	134.66	134.68	134.70	134.71	134.73	134.74	134.76	134.78	134.79
55	134.81	134.82	134.84	134.85	134.87	134.89	134.90	134.92	134.93	134.95
56	134.96	134.98	134.99	135.01	135.03	135.04	135.06	135.07	135.09	135.10
57	135.12	135.13	135.15	135.16	135.18	135.19	135.21	135.22	135.24	135.25
58	135.27	135.28	135.30	135.31	135.33	135.34	135.36	135.37	135.39	135.40
59	135.42	135.43	135.45	135.46	136.48	135.49	135.50	135.52	135.53	135.55

TABLE II

RELATIONS BETWEEN DECIBELS AND CURRENT (I),

VOLTAGE (V), OR POWER (P) RATIOS

FROM 0 TO 10.0 DECIBELS

Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{P_1}{P_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	$\frac{P_2}{P_1}$	Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{P_1}{P_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	$\frac{P_2}{P_1}$
.1	1.012	1.023	.9886	.9772	5.1	1.799	3.236	.5559	.3090
.2	1.023	1.047	.9772	.9550	5.2	1.820	3.311	.5495	.3020
.3	1.035	1.072	.9661	.9333	5.3	1.841	3.388	.5433	.2951
.4	1.047	1.096	.9550	.9120	5.4	1.862	3.467	.5370	.2884
.5	1.059	1.122	.9441	.8913	5.5	1.884	3.548	.5309	.2818
.6	1.072	1.148	.9333	.8710	5.6	1.906	3.631	.5248	.2754
.7	1.084	1.175	.9226	.8511	5.7	1.928	3.715	.5188	.2692
.8	1.096	1.202	.9120	.8318	5.8	1.950	3.802	.5128	.2630
.9	1.109	1.230	.9016	.8128	5.9	1.972	3.891	.5070	.2570
1.0	1.122	1.259	.8913	.7943	6.0	1.995	3.981	.5012	.2512
1.1	1.135	1.288	.8811	.7763	6.1	2.018	4.074	.4955	.2455
1.2	1.148	1.318	.8710	.7586	6.2	2.042	4.169	.4898	.2399
1.3	1.162	1.349	.8610	.7413	6.3	2.065	4.266	.4842	.2344
1.4	1.175	1.380	.8511	.7244	6.4	2.089	4.365	.4786	.2291
1.5	1.189	1.412	.8414	.7080	6.5	2.114	4.467	.4732	.2239
1.6	1.202	1.445	.8318	.6918	6.6	2.138	4.571	.4677	.2188
1.7	1.216	1.479	.8222	.6761	6.7	2.163	4.677	.4624	.2138
1.8	1.230	1.514	.8128	.6607	6.8	2.188	4.786	.4571	.2089
1.9	1.245	1.549	.8035	.6457	6.9	2.213	4.898	.4519	.2042
2.0	1.259	1.585	.7943	.6310	7.0	2.239	5.012	.4467	.1995
2.1	1.274	1.622	.7852	.6166	7.1	2.265	5.128	.4416	.1950
2.2	1.288	1.660	.7763	.6026	7.2	2.291	5.248	.4365	.1906
2.3	1.303	1.698	.7674	.5888	7.3	2.317	5.370	.4315	.1862
2.4	1.318	1.738	.7586	.5754	7.4	2.344	5.495	.4266	.1820
2.5	1.334	1.778	.7499	.5623	7.5	2.371	5.623	.4217	.1778
2.6	1.349	1.820	.7413	.5495	7.6	2.399	5.754	.4169	.1738
2.7	1.365	1.862	.7328	.5370	7.7	2.427	5.888	.4121	.1698
2.8	1.380	1.906	.7244	.5248	7.8	2.455	6.026	.4074	.1660
2.9	1.396	1.950	.7161	.5128	7.9	2.483	6.166	.4027	.1622
3.0	1.413	1.995	.7080	.5012	8.0	2.512	6.310	.3981	.1585
3.1	1.429	2.042	.6998	.4898	8.1	2.541	6.457	.3936	.1549
3.2	1.445	2.089	.6918	.4786	8.2	2.570	6.607	.3891	.1514
3.3	1.462	2.138	.6839	.4677	8.3	2.600	6.761	.3846	.1479
3.4	1.479	2.188	.6761	.4571	8.4	2.630	6.918	.3802	.1445
3.5	1.496	2.239	.6683	.4467	8.5	2.661	7.080	.3758	.1412
3.6	1.514	2.291	.6607	.4365	8.6	2.692	7.244	.3715	.1380
3.7	1.531	2.344	.6531	.4266	8.7	2.723	7.413	.3673	.1349
3.8	1.549	2.399	.6457	.4169	8.8	2.754	7.586	.3631	.1318
3.9	1.567	2.455	.6383	.4074	8.9	2.786	7.763	.3589	.1288
4.0	1.585	2.512	.6310	.3981	9.0	2.818	7.943	.3548	.1259
4.1	1.603	2.570	.6237	.3891	9.1	2.851	8.128	.3508	.1230
4.2	1.622	2.630	.6166	.3802	9.2	2.884	8.318	.3467	.1202
4.3	1.641	2.692	.6095	.3715	9.3	2.917	8.511	.3428	.1175
4.4	1.660	2.754	.6026	.3631	9.4	2.951	8.710	.3388	.1148
4.5	1.679	2.818	.5957	.3548	9.5	2.985	8.913	.3350	.1122
4.6	1.698	2.884	.5888	.3467	9.6	3.020	9.120	.3311	.1096
4.7	1.718	2.951	.5821	.3388	9.7	3.055	9.333	.3273	.1072
4.8	1.738	3.020	.5754	.3311	9.8	3.090	9.550	.3236	.1047
4.9	1.758	3.090	5689	.3236	9.9	3.126	9.772	.3199	.1023
5.0	1.778	3.162	.5623	.3162	10.0	3.162	10.000	.3162	.1000

TABLE II

RELATIONS BETWEEN DECIBELS AND CURRENT (I),

VOLTAGE (V), OR POWER (P) RATIOS

FROM 10.1 TO 20.0 DECIBELS

Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{P_1}{P_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	$\frac{P_2}{P_1}$	Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{P_1}{P_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	$\frac{P_2}{P_1}$
10.1	3.199	10.23	.3126	.09772	15.1	5.689	32.36	.1758	.03090
10.2	3.236	10.47	.3090	.09550	15.2	5.754	33.11	.1738	.03020
10.3	3.273	10.72	.3055	.09333	15.3	5.821	33.88	.1718	.02951
10.4	3.311	10.96	.3020	.09120	15.4	5.888	34.67	.1698	.02884
10.5	3.350	11.22	.2985	.08913	15.5	5.957	35.48	.1679	.02818
10.6	3.388	11.48	.2951	.08710	15.6	6.026	36.31	.1660	.02754
10.7	3.428	11.75	.2917	.08511	15.7	6.095	37.15	.1641	.02692
10.8	3.467	12.02	.2884	.08318	15.8	6.166	38.02	.1622	.02630
10.9	3.508	12.30	.2851	.08128	15.9	6.237	38.90	.1603	.02570
11.0	3.548	12.59	.2818	.07943	16.0	6.310	39.81	.1585	.02512
11.1	3.589	12.88	.2786	.07763	16.1	6.383	40.74	.1567	.02455
11.2	3.631	13.18	.2754	.07586	16.2	6.457	41.69	.1549	.02399
11.3	3.673	13.49	.2723	.07413	16.3	6.531	42.66	.1531	.02344
11.4	3.715	13.80	.2692	.07244	16.4	6.607	43.65	.1514	.02291
11.5	3.758	14.13	.2661	.07080	16.5	6.683	44.67	.1496	.02239
11.6	3.802	14.45	.2630	.06918	16.6	6.761	45.71	.1479	.02188
11.7	3.846	14.79	.2600	.06761	16.7	6.839	46.77	.1462	.02138
11.8	3.891	15.14	.2570	.06607	16.8	6.918	47.86	.1445	.02089
11.9	3.936	15.49	.2541	.06457	16.9	6.998	48.98	.1429	.02042
12.0	3.981	15.85	.2512	.06310	17.0	7.080	50.12	.1412	.01995
12.1	4.027	16.22	.2483	.06166	17.1	7.161	51.29	.1396	.01950
12.2	4.074	16.60	.2455	.06026	17.2	7.244	52.48	.1380	.01906
12.3	4.121	16.98	.2427	.05888	17.3	7.328	53.70	.1365	.01862
12.4	4.169	17.38	.2399	.05754	17.4	7.413	54.95	.1349	.01820
12.5	4.217	17.78	.2371	.05623	17.5	7.499	56.23	.1334	.01778
12.6	4.266	18.20	.2344	.05495	17.6	7.586	57.54	.1318	.01738
12.7	4.315	18.62	.2317	.05370	17.7	7.674	58.88	.1303	.01698
12.8	4.365	19.05	.2291	.05248	17.8	7.763	60.26	.1288	.01660
12.9	4.416	19.50	.2265	.05128	17.9	7.852	61.66	.1274	.01622
13.0	4.467	19.95	.2239	.05012	18.0	7.943	63.10	.1259	.01585
13.1	4.519	20.42	.2213	.04898	18.1	8.035	64.57	.1245	.01549
13.2	4.571	20.89	.2188	.04786	18.2	8.128	66.07	.1230	.01514
13.3	4.624	21.38	.2163	.04677	18.3	8.222	67.61	.1216	.01479
13.4	4.677	21.88	.2138	.04571	18.4	8.318	69.18	.1202	.01445
13.5	4.732	22.39	.2114	.04467	18.5	8.414	70.79	.1189	.01412
13.6	4.786	22.91	.2089	.04365	18.6	8.511	72.44	.1175	.01380
13.7	4.842	23.44	.2065	.04266	18.7	8.610	74.13	.1161	.01349
13.8	4.898	23.99	.2042	.04169	18.8	8.710	75.86	.1148	.01318
13.9	4.955	24.55	.2018	.04074	18.9	8.811	77.62	.1135	.01288
14.0	5.012	25.12	.1995	.03981	19.0	8.913	79.43	.1122	.01259
14.1	5.070	25.70	.1972	.03891	19.1	9.016	81.28	.1109	.01230
14.2	5.128	26.30	.1950	.03802	19.2	9.120	83.18	.1096	.01202
14.3	5.188	26.92	.1928	.03715	19.3	9.226	85.11	.1084	.01175
14.4	5.248	27.54	.1906	.03631	19.4	9.333	87.10	.1072	.01148
14.5	5.309	28.18	.1884	.03548	19.5	9.441	89.13	.1059	.01122
14.6	5.370	28.84	.1862	.03467	19.6	9.550	91.20	.1047	.01096
14.7	5.433	29.51	.1841	.03388	19.7	9.661	93.33	.1035	.01072
14.8	5.495	30.20	.1820	.03311	19.8	9.772	95.50	.1023	.01047
14.9	5.559	30.90	.1799	.03236	19.9	9.886	97.72	.1012	.01023
15.0	5.623	31.62	.1778	.03162	20.0	10.000	100.00	.1000	.01000

TABLE II

RELATIONS BETWEEN DECIBELS AND CURRENT (I),
VOLTAGE (V), OR POWER (P) RATIOS
FROM 20.1 TO 30 DECIBELS

Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{P_1}{P_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	$\frac{P_2}{P_1}$	Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{P_1}{P_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	$\frac{P_2}{P_1}$
20.1	10.12	102.3	.0989	.009772	25.1	17.99	323.6	.0556	.00309
20.2	10.23	104.7	.0977	.009550	25.2	18.20	331.1	.0550	.00302
20.3	10.35	107.2	.0966	.009333	25.3	18.41	338.8	.0543	.00295
20.4	10.47	109.6	.0955	.009120	25.4	18.62	346.7	.0537	.00288
20.5	10.59	112.2	.0944	.008913	25.5	18.84	354.8	.0531	.00282
20.6	10.72	114.8	.0933	.008710	25.6	19.06	363.1	.0525	.00275
20.7	10.84	117.5	.0923	.008511	25.7	19.28	371.5	.0519	.00269
20.8	10.96	120.2	.0912	.008318	25.8	19.50	380.2	.0513	.00263
20.9	11.09	123.0	.0902	.008128	25.9	19.72	389.1	.0507	.00257
21.0	11.22	125.9	.0891	.007943	26.0	19.95	398.1	.0501	.00251
21.1	11.35	128.8	.0881	.007763	26.1	20.18	407.4	.0496	.00246
21.2	11.48	131.8	.0871	.007586	26.2	20.42	416.9	.0490	.00240
21.3	11.62	134.9	.0861	.007413	26.3	20.65	426.6	.0484	.00234
21.4	11.75	138.0	.0851	.007244	26.4	20.89	436.5	.0479	.00229
21.5	11.89	141.2	.0841	.007080	26.5	21.14	446.7	.0473	.00224
21.6	12.02	144.5	.0832	.006918	26.6	21.38	457.1	.0468	.00219
21.7	12.16	147.9	.0822	.006761	26.7	21.63	467.7	.0462	.00214
21.8	12.30	151.4	.0813	.006607	26.8	21.88	478.6	.0457	.00209
21.9	12.45	154.9	.0804	.006457	26.9	22.13	489.8	.0452	.00204
22.0	12.59	158.5	.0794	.006310	27.0	22.39	501.2	.0447	.00200
22.1	12.74	162.2	.0785	.006166	27.1	22.65	512.8	.0442	.00195
22.2	12.88	166.0	.0776	.006026	27.2	22.91	524.8	.0436	.00191
22.3	13.03	169.8	.0767	.005888	27.3	23.17	537.0	.0432	.00186
22.4	13.18	173.8	.0759	.005754	27.4	23.44	549.5	.0427	.00182
22.5	13.34	177.8	.0750	.005623	27.5	23.71	562.3	.0422	.00178
22.6	13.49	182.0	.0741	.005495	27.6	23.99	575.4	.0417	.00174
22.7	13.65	186.2	.0733	.005370	27.7	24.27	588.8	.0412	.00170
22.8	13.80	190.6	.0724	.005248	27.8	24.55	602.6	.0407	.00166
22.9	13.96	195.0	.0716	.005128	27.9	24.83	616.6	.0403	.00162
23.0	14.13	199.5	.0708	.005012	28.0	25.12	631.0	.0398	.00159
23.1	14.29	204.2	.0700	.004898	28.1	25.41	645.7	.0394	.00155
23.2	14.45	208.9	.0692	.004786	28.2	25.70	660.7	.0389	.00151
23.3	14.62	213.8	.0684	.004677	28.3	26.00	676.1	.0385	.00148
23.4	14.79	218.8	.0676	.004571	28.4	26.30	691.8	.0380	.00145
23.5	14.96	223.9	.0668	.004467	28.5	26.61	708.0	.0376	.00141
23.6	15.14	229.1	.0661	.004365	28.6	26.92	724.4	.0372	.00138
23.7	15.31	234.4	.0653	.004266	28.7	27.23	741.3	.0367	.00135
23.8	15.49	239.9	.0646	.004169	28.8	27.54	758.6	.0363	.00132
23.9	15.67	245.5	.0638	.004074	28.9	27.86	776.3	.0359	.00129
24.0	15.85	251.2	.0631	.003981	29.0	28.18	794.3	.0355	.00126
24.1	16.03	257.0	.0624	.003891	29.1	28.51	812.8	.0351	.00123
24.2	16.22	263.0	.0617	.003802	29.2	28.84	831.8	.0347	.00120
24.3	16.41	269.2	.0610	.003715	29.3	29.17	851.1	.0343	.00118
24.4	16.60	275.4	.0603	.003631	29.4	29.51	871.0	.0339	.00115
24.5	16.79	281.8	.0596	.003548	29.5	29.85	891.3	.0335	.00112
24.6	16.98	288.4	.0589	.003467	29.6	30.20	912.0	.0331	.00110
24.7	17.18	295.1	.0582	.003388	29.7	30.55	933.3	.0327	.00107
24.8	17.38	302.0	.0575	.003311	29.8	30.90	955.0	.0324	.00105
24.9	17.58	309.0	.0569	.003236	29.9	31.26	977.2	.0320	.00102
25.0	17.78	316.2	.0562	.003162	30.0	31.62	1000.0	.0316	.00100

TABLE III

RELATIONS BETWEEN DECIBELS AND CURRENT (I)

OR VOLTAGE (V) RATIOS

FROM 30.1 TO 45.0 DECIBELS

Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$
30.1	31.99	.03126	35.1	56.89	.01758	40.1	101.2	.00989
30.2	38.36	.03090	35.2	57.54	.01738	40.2	102.3	.00977
30.3	32.73	.03055	35.3	58.21	.01718	40.3	103.5	.00966
30.4	33.11	.03020	35.4	58.88	.01698	40.4	104.7	.00955
30.5	33.50	.02985	35.5	59.57	.01679	40.5	105.9	.00944
30.6	33.88	.02951	35.6	60.26	.01660	40.6	107.2	.00933
30.7	34.28	.02917	35.7	60.95	.01641	40.7	108.4	.00923
30.8	34.67	.02884	35.8	61.66	.01622	40.8	109.6	.00912
30.9	35.08	.02851	35.9	62.37	.01603	40.9	110.9	.00902
31.0	35.48	.02818	36.0	63.10	.01585	41.0	112.2	.00891
31.1	35.89	.02786	36.1	63.83	.01567	41.1	113.5	.00881
31.2	36.31	.02754	36.2	64.57	.01549	41.2	114.8	.00871
31.3	36.73	.02723	36.3	65.31	.01531	41.3	116.2	.00861
31.4	37.15	.02692	36.4	66.07	.01514	41.4	117.5	.00851
31.5	37.58	.02661	36.5	66.83	.01496	41.5	118.9	.00841
31.6	38.02	.02630	36.6	67.61	.01479	41.6	120.2	.00832
31.7	38.46	.02600	36.7	68.39	.01462	41.7	121.6	.00822
31.8	38.91	.02570	36.8	69.18	.01445	41.8	123.0	.00813
31.9	39.36	.02541	36.9	69.98	.01429	41.9	124.5	.00804
32.0	39.81	.02512	37.0	70.80	.01412	42.0	125.9	.00794
32.1	40.27	.02483	37.1	71.61	.01396	42.1	127.4	.00785
32.2	40.74	.02455	37.2	72.44	.01380	42.2	128.8	.00776
32.3	41.21	.02427	37.3	73.28	.01365	42.3	130.3	.00767
32.4	41.69	.02399	37.4	74.13	.01349	42.4	131.8	.00759
32.5	42.17	.02371	37.5	74.99	.01334	42.5	133.4	.00750
32.6	42.66	.02344	37.6	75.86	.01318	42.6	134.9	.00741
32.7	43.15	.02317	37.7	76.74	.01303	42.7	136.5	.00733
32.8	43.65	.02291	37.8	77.63	.01288	42.8	138.0	.00724
32.9	44.16	.02265	37.9	78.52	.01274	42.9	139.6	.00716
33.0	44.67	.02239	38.0	79.43	.01269	43.0	141.3	.00708
33.1	45.19	.02213	38.1	80.35	.01245	43.1	142.9	.00700
33.2	45.71	.02188	38.2	81.28	.01230	43.2	144.5	.00692
33.3	46.24	.02163	38.3	82.22	.01216	43.3	146.2	.00684
33.4	46.77	.02138	38.4	83.18	.01202	43.4	147.9	.00676
33.5	47.32	.02114	38.5	84.14	.01189	43.5	149.6	.00668
33.6	47.86	.02089	38.6	85.11	.01175	43.6	151.4	.00661
33.7	48.42	.02065	38.7	86.10	.01161	43.7	153.1	.00653
33.8	48.98	.02042	38.8	87.10	.01148	43.8	154.9	.00646
33.9	49.55	.02018	38.9	88.11	.01135	43.9	156.7	.00638
34.0	50.12	.01995	39.0	89.13	.01122	44.0	158.5	.00631
34.1	50.70	.01972	39.1	90.16	.01109	44.1	160.3	.00624
34.2	51.28	.01952	39.2	91.20	.01096	44.2	162.2	.00617
34.3	51.88	.01928	39.3	92.26	.01084	44.3	164.1	.00610
34.4	52.48	.01906	39.4	93.33	.01072	44.4	166.0	.00603
34.5	53.09	.01884	39.5	94.41	.01059	44.5	167.9	.00596
34.6	53.70	.01862	39.6	95.50	.01047	44.6	169.8	.00589
34.7	54.33	.01841	39.7	96.61	.01035	44.7	171.8	.00582
34.8	54.95	.01820	39.8	97.72	.01023	44.8	173.8	.00575
34.9	55.59	.01799	39.9	98.86	.01012	44.9	175.8	.00569
35.0	56.23	.01778	40.0	100.00	.01000	45.0	177.8	.00562

TABLE III

RELATIONS BETWEEN DECIBELS AND CURRENT (I)

OR VOLTAGE (V) RATIOS

FROM 45.1 TO 60.0 DECIBELS

Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$
45.1	179.9	.00556	50.1	319.9	.00313	55.1	568.9	.00176
45.2	182.0	.00550	50.2	323.6	.00309	55.2	575.4	.00174
45.3	184.1	.00543	50.3	327.3	.00306	55.3	582.1	.00172
45.4	186.2	.00537	50.4	331.1	.00302	55.4	588.8	.00170
45.5	188.4	.00531	50.5	335.0	.00298	55.5	595.7	.00168
45.6	190.6	.00525	50.6	338.8	.00295	55.6	602.6	.00166
45.7	192.8	.00519	50.7	342.8	.00292	55.7	609.5	.00164
45.8	195.0	.00513	50.8	346.7	.00288	55.8	616.6	.00162
45.9	197.2	.00507	50.9	350.8	.00285	55.9	623.7	.00160
46.0	199.5	.00501	51.0	354.8	.00282	56.0	631.0	.00158
46.1	201.8	.00496	51.1	358.9	.00279	56.1	638.3	.00157
46.2	204.2	.00490	51.2	363.1	.00275	56.2	645.7	.00155
46.3	206.5	.00484	51.3	367.3	.00272	56.3	653.1	.00153
46.4	208.9	.00479	51.4	371.5	.00269	56.4	660.7	.00151
46.5	211.4	.00473	51.5	375.8	.00266	56.5	668.3	.00150
46.6	213.8	.00468	51.6	380.2	.00263	56.6	676.1	.00148
46.7	216.3	.00462	51.7	384.6	.00260	56.7	683.9	.00146
46.8	218.8	.00457	51.8	389.1	.00257	56.8	691.8	.00145
46.9	221.3	.00452	51.9	393.6	.00254	56.9	699.8	.00143
47.0	223.9	.00447	52.0	398.1	.00251	57.0	708.0	.00141
47.1	226.5	.00442	52.1	402.7	.00248	57.1	716.1	.00140
47.2	229.1	.00436	52.2	407.4	.00245	57.2	724.4	.00138
47.3	231.7	.00432	52.3	412.1	.00243	57.3	732.8	.00136
47.4	234.4	.00427	52.4	416.9	.00240	57.4	741.3	.00135
47.5	237.1	.00422	52.5	421.7	.00237	57.5	749.9	.00133
47.6	239.9	.00417	52.6	426.6	.00234	57.6	758.6	.00132
47.7	242.7	.00412	52.7	431.5	.00232	57.7	767.4	.00130
47.8	245.5	.00407	52.8	436.6	.00229	57.8	776.3	.00129
47.9	248.3	.00403	52.9	441.6	.00226	57.9	785.2	.00127
48.0	251.2	.00398	53.0	446.7	.00224	58.0	794.3	.00126
48.1	254.1	.00394	53.1	451.9	.00221	58.1	803.5	.00124
48.2	257.1	.00389	53.2	457.1	.00219	58.2	812.8	.00123
48.3	260.1	.00385	53.3	462.4	.00216	58.3	822.2	.00122
48.4	263.0	.00380	53.4	467.7	.00214	58.4	831.8	.00120
48.5	266.1	.00376	53.5	473.2	.00211	58.5	841.4	.00119
48.6	269.2	.00372	53.6	478.6	.00209	58.6	851.1	.00117
48.7	272.3	.00367	53.7	484.2	.00207	58.7	861.0	.00116
48.8	275.4	.00363	53.8	489.8	.00204	58.8	871.0	.00115
48.9	278.6	.00359	53.9	495.5	.00202	58.9	881.1	.00113
49.0	281.8	.00355	54.0	501.2	.00200	59.0	891.3	.00112
49.1	285.1	.00351	54.1	507.0	.00197	59.1	901.6	.00111
49.2	288.4	.00347	54.2	512.8	.00195	59.2	912.0	.00110
49.3	291.7	.00343	54.3	518.8	.00193	59.3	922.6	.00108
49.4	295.1	.00339	54.4	524.8	.00191	59.4	933.3	.00107
49.5	298.5	.00335	54.5	530.9	.00188	59.5	944.1	.00106
49.6	302.0	.00331	54.6	537.0	.00186	59.6	955.0	.00105
49.7	305.5	.00327	54.7	543.3	.00184	59.7	966.1	.00103
49.8	309.0	.00324	54.8	549.5	.00182	59.8	977.2	.00102
49.9	312.6	.00320	54.9	555.9	.00180	59.9	988.6	.00101
50.0	316.2	.00316	55.0	562.3	.00178	60.0	1000.0	.00100

TABLE III   FROM 60.1 TO 75.0 DECIBELS

Deci-bels	$\dfrac{I_1}{I_2}$ or $\dfrac{V_1}{V_2}$	$\dfrac{I_2}{I_1}$ or $\dfrac{V_2}{V_1}$	Deci-bels	$\dfrac{I_1}{I_2}$ or $\dfrac{V_1}{V_2}$	$\dfrac{I_2}{I_1}$ or $\dfrac{V_2}{V_1}$	Deci-bels	$\dfrac{I_1}{I_2}$ or $\dfrac{V_1}{V_2}$	$\dfrac{I_2}{I_1}$ or $\dfrac{V_2}{V_1}$
60.1	1012.	.000989	65.1	1799.	.000556	70.1	3199.	.000313
60.2	1023.	.000977	65.2	1820.	.000550	70.2	3236.	.000309
60.3	1035.	.000966	65.3	1841.	.000543	70.3	3273.	.000306
60.4	1047.	.000955	65.4	1862.	.000537	70.4	3311.	.000302
60.5	1059.	.000944	65.5	1884.	.000531	70.5	3350.	.000298
60.6	1072.	.000933	65.6	1906.	.000525	70.6	3388.	.000295
60.7	1084.	.000922	65.7	1928.	.000519	70.7	3428.	.000292
60.8	1096.	.000912	65.8	1950.	.000513	70.8	3467.	.000288
60.9	1109.	.000902	65.9	1972.	.000507	70.9	3508.	.000285
61.0	1122.	.000891	66.0	1995.	.000501	71.0	3548.	.000282
61.1	1135.	.000881	66.1	2018.	.000496	71.1	3589.	.000279
61.2	1148.	.000871	66.2	2042.	.000490	71.2	3631	.000275
61.3	1162.	.000861	66.3	2065.	.000484	71.3	3673.	.000272
61.4	1175.	.000851	66.4	2089.	.000479	71.4	3715.	.000269
61.5	1189.	.000841	66.5	2114.	.000473	71.5	3758.	.000266
61.6	1202.	.000832	66.6	2138.	.000468	71.6	3802.	.000263
61.7	1216.	.000822	66.7	2163.	.000462	71.7	3846.	.000260
61.8	1230.	.000813	66.8	2188.	.000457	71.8	3891.	.000257
61.9	1245.	.000804	66.9	2213.	.000452	71.9	3936.	.000254
62.0	1259.	.000794	67.0	2239.	.000447	72.0	3981.	.000251
62.1	1274.	.000785	67.1	2265.	.000442	72.1	4027.	.000248
62.2	1288.	.000776	67.2	2291.	.000436	72.2	4074.	.000245
62.3	1303.	.000767	67.3	2317.	.000432	72.3	4121.	.000243
62.4	1318.	.000759	67.4	2344.	.000427	72.4	4169.	.000240
62.5	1334.	.000750	67.5	2371.	.000422	72.5	4217.	.000237
62.6	1349.	.000741	67.6	2399.	.000417	72.6	4266.	.000234
62.7	1365.	.000733	67.7	2427.	.000412	72.7	4315.	.000232
62.8	1380.	.000724	67.8	2455.	.000407	72.8	4365.	.000229
62.9	1396.	.000716	67.9	2483.	.000403	72.9	4416.	.000226
63.0	1413.	.000708	68.0	2512.	.000398	73.0	4467.	.000224
63.1	1429.	.000700	68.1	2541.	.000394	73.1	4519.	.000221
63.2	1445.	.000692	68.2	2570.	.000389	73.2	4571.	.000219
63.3	1462.	.000684	68.3	2600.	.000385	73.3	4624.	.000216
63.4	1479.	.000676	68.4	2630.	.000380	73.4	4677.	.000214
63.5	1496.	.000668	68.5	2661.	.000376	73.5	4732.	.000211
63.6	1514.	.000661	68.6	2692.	.000372	73.6	4786.	.000209
63.7	1531.	.000653	68.7	2723.	.000367	73.7	4842.	.000207
63.8	1549.	.000646	68.8	2754.	.000363	73.8	4898.	.000204
63.9	1567.	.000638	68.9	2786.	.000359	73.9	4955.	.000202
64.0	1585.	.000631	69.0	2818.	.000355	74.0	5012.	.000200
64.1	1603.	.000624	69.1	2851.	.000351	74.1	5070.	.000197
64.2	1622.	.000617	69.2	2884.	.000347	74.2	5129.	.000195
64.3	1641.	.000610	69.3	2917.	.000343	74.3	5188.	.000193
64.4	1660.	.000603	69.4	2951.	.000339	74.4	5248.	.000191
64.5	1679.	.000596	69.5	2985.	.000335	74.5	5309.	.000188
64.6	1698.	.000589	69.6	3020.	.000331	74.6	5370.	.000186
64.7	1718.	.000582	69.7	3055.	.000327	74.7	5433.	.000184
64.8	1738.	.000575	69.8	3090.	.000324	74.8	5495.	.000182
64.9	1758.	.000569	69.9	3126.	.000320	74.9	5559.	.000180
65.0	1778.	.000562	70.0	3162.	.000316	75.0	5623.	.000178

NOTE: Current (or voltage) ratios corresponding to larger values of decibels than are given in this table may be readily obtained by remembering that, each time the number of decibels is increased by 20, the corresponding current ratio is either multiplied by or divided by 10 - depending upon whether or not the current ratio was originally taken as greater or less than unity.

For example, 90.5 decibels correspond to a current (or voltage) ratio either of 33,500 or of .0000298.

TABLE III

RELATIONS BETWEEN DECIBELS AND CURRENT (I) OR VOLTAGE (V) RATIOS

FROM 75.1 TO 90.0 DECIBELS

Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Deci-bels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$
75.1	5689.	.000176	80.1	10120.	.0000989	85.1	17990.	.0000556
75.2	5754.	.000174	80.2	10230.	.0000977	85.2	18200.	.0000550
75.3	5821.	.000172	80.3	10350.	.0000966	85.3	18410.	.0000543
75.4	5888.	.000170	80.4	10470.	.0000955	85.4	18620.	.0000537
75.5	5957.	.000168	80.5	10590.	.0000944	85.5	18840.	.0000531
75.6	6026.	.000166	80.6	10720.	.0000933	85.6	19060.	.0000525
75.7	6095.	.000164	80.7	10840.	.0000922	85.7	19280.	.0000519
75.8	6166.	.000162	80.8	10960.	.0000912	85.8	19500.	.0000513
75.9	6237.	.000160	80.9	11090.	.0000902	85.9	19720.	.0000507
76.0	6310.	.000158	81.0	11220.	.0000891	86.0	19950.	.0000501
76.1	6383.	.000157	81.1	11350.	.0000881	86.1	20180.	.0000496
76.2	6457.	.000155	81.2	11480.	.0000871	86.2	20420.	.0000490
76.3	6531.	.000153	81.3	11620.	.0000861	86.3	20650.	.0000484
76.4	6607.	.000151	81.4	11750.	.0000851	86.4	20890.	.0000479
76.5	6683.	.000150	81.5	11890.	.0000841	86.5	21140.	.0000473
76.6	6761.	.000148	81.6	12020.	.0000832	86.6	21380.	.0000468
76.7	6839.	.000146	81.7	12160.	.0000822	86.7	21630.	.0000462
76.8	6918.	.000145	81.8	12300.	.0000813	86.8	21880.	.0000457
76.9	6998.	.000143	81.9	12450.	.0000804	86.9	22130.	.0000452
77.0	7080.	.000141	82.0	12590.	.0000794	87.0	22390.	.0000447
77.1	7161.	.000140	82.1	12740.	.0000785	87.1	22650.	.0000442
77.2	7244.	.000138	82.2	12880.	.0000776	87.2	22910.	.0000436
77.3	7328.	.000136	82.3	13030.	.0000767	87.3	23170.	.0000432
77.4	7413.	.000135	82.4	13180.	.0000759	87.4	23440.	.0000427
77.5	7499.	.000133	82.5	13340.	.0000750	87.5	23710.	.0000422
77.6	7586.	.000132	82.6	13490.	.0000741	87.6	23990.	.0000417
77.7	7674.	.000130	82.7	13650.	.0000733	87.7	24270.	.0000412
77.8	7763.	.000129	82.8	13800.	.0000724	87.8	24550.	.0000407
77.9	7852.	.000127	82.9	13960.	.0000716	87.9	24830.	.0000403
78.0	7943.	.000126	83.0	14130.	.0000708	88.0	25120.	.0000398
78.1	8035.	.000124	83.1	14290.	.0000700	88.1	25410.	.0000394
78.2	8128.	.000123	83.2	14450.	.0000692	88.2	25700.	.0000389
78.3	8222.	.000122	83.3	14620.	.0000684	88.3	26000.	.0000385
78.4	8318.	.000120	83.4	14790.	.0000676	88.4	26300.	.0000380
78.5	8414.	.000119	83.5	14960.	.0000668	88.5	26610.	.0000376
78.6	8511.	.000117	83.6	15140.	.0000661	88.6	26920.	.0000372
78.7	8610.	.000116	83.7	15310.	.0000653	88.7	27230.	.0000367
78.8	8710.	.000115	83.8	15490.	.0000646	88.8	27540.	.0000363
78.9	8811.	.000113	83.9	15670.	.0000638	88.9	27860.	.0000359
79.0	8913.	.000112	84.0	15850.	.0000631	89.0	28180.	.0000355
79.1	9016.	.000111	84.1	16030.	.0000624	89.1	28510.	.0000351
79.2	9120.	.000110	84.2	16220.	.0000617	89.2	28840.	.0000347
79.3	9226.	.000108	84.3	16410.	.0000610	89.3	29170.	.0000343
79.4	9333.	.000107	84.4	16500.	.0000603	89.4	29510.	.0000339
79.5	9441.	.000106	84.5	16790.	.0000596	89.5	29850.	.0000335
79.6	9550.	.000105	84.6	16980.	.0000589	89.6	30200.	.0000331
79.7	9661.	.000103	84.7	17180.	.0000582	89.7	30550.	.0000327
79.8	9772.	.000102	84.8	17380.	.0000575	89.8	30900.	.0000324
79.9	9886.	.000101	84.9	17580.	.0000569	89.9	31260.	.0000320
80.0	10000.	.000100	85.0	17780.	.0000562	90.0	31620.	.0000316

TABLE III

RELATIONS BETWEEN DECIBELS AND CURRENT (I) OR VOLTAGE (V) RATIOS

FROM 90.1 TO 105.0 DECIBELS

Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$	Decibels	$\frac{I_1}{I_2}$ or $\frac{V_1}{V_2}$	$\frac{I_2}{I_1}$ or $\frac{V_2}{V_1}$
90.1	31990.	.0000313	95.1	56890.	.0000176	100.1	101200.	.00000989
90.2	32360.	.0000309	95.2	57540.	.0000174	100.2	102300.	.00000977
90.3	32730.	.0000306	95.3	58210.	.0000172	100.3	103500.	.00000966
90.4	33110.	.0000302	95.4	58880.	.0000170	100.4	104700.	.00000955
90.5	33500.	.0000298	95.5	59570.	.0000168	100.5	105900.	.00000944
90.6	33880.	.0000295	95.6	60260.	.0000166	100.6	107200.	.00000933
90.7	34280.	.0000292	95.7	60950.	.0000164	100.7	108400.	.00000922
90.8	34670.	.0000288	95.8	61660.	.0000162	100.8	109600.	.00000912
90.9	35080.	.0000285	95.9	62370.	.0000160	100.9	110900.	.00000902
91.0	35480.	.0000282	96.0	63100.	.0000158	101.0	112200.	.00000891
91.1	35890.	.0000279	96.1	63830.	.0000157	101.1	113500.	.00000881
91.2	36310.	.0000275	96.2	64570.	.0000155	101.2	114800.	.00000871
91.3	36730.	.0000272	96.3	65310.	.0000153	101.3	116200.	.00000861
91.4	37150.	.0000269	96.4	66070.	.0000151	101.4	117500.	.00000851
91.5	37580.	.0000266	96.5	66830.	.0000150	101.5	118900.	.00000841
91.6	38020.	.0000263	96.6	67610.	.0000148	101.6	120200.	.00000832
91.7	38460.	.0000260	96.7	68390.	.0000146	101.7	121600.	.00000822
91.8	38910.	.0000257	96.8	69180.	.0000145	101.8	123000.	.00000813
91.9	39360.	.0000254	96.9	69980.	.0000143	101.9	124500.	.00000804
92.0	39810.	.0000251	97.0	70800.	.0000141	102.0	125900.	.00000794
92.1	40270.	.0000248	97.1	71610.	.0000140	102.1	127400.	.00000785
92.2	40740.	.0000245	97.2	72440.	.0000138	102.2	128800.	.00000776
92.3	41210.	.0000243	97.3	73280.	.0000136	102.3	130300.	.00000767
92.4	41690.	.0000240	97.4	74130.	.0000135	102.4	131800.	.00000759
92.5	42170.	.0000237	97.5	74990.	.0000133	102.5	133400.	.00000750
92.6	42660.	.0000234	97.6	75860.	.0000132	102.6	134900.	.00000741
92.7	43150.	.0000232	97.7	76740.	.0000130	102.7	136500.	.00000733
92.8	43660.	.0000229	97.8	77630.	.0000129	102.8	138000.	.00000724
92.9	44160.	.0000226	97.9	78520.	.0000127	102.9	139600.	.00000716
93.0	44670.	.0000224	98.0	79430.	.0000126	103.0	141300.	.00000708
93.1	45190.	.0000221	98.1	80350.	.0000124	103.1	142900.	.00000700
93.2	45710.	.0000219	98.2	81280.	.0000123	103.2	144500.	.00000692
93.3	46240.	.0000216	98.3	82220.	.0000122	103.3	146200.	.00000684
93.4	46770.	.0000214	98.4	83180.	.0000120	103.4	147900.	.00000676
93.5	47320.	.0000211	98.5	84140.	.0000119	103.5	149600.	.00000668
93.6	47860.	.0000209	98.6	85110.	.0000117	103.6	151400.	.00000661
93.7	48420.	.0000207	98.7	86100.	.0000116	103.7	153100.	.00000653
93.8	48980.	.0000204	98.8	87100.	.0000115	103.8	154900.	.00000646
93.9	49550.	.0000202	98.9	88110.	.0000113	103.9	156700.	.00000638
94.0	50120.	.0000200	99.0	89130.	.0000112	104.0	158500.	.00000631
94.1	50700.	.0000197	99.1	90160.	.0000111	104.1	160300.	.00000624
94.2	51280.	.0000195	99.2	91200.	.0000110	104.2	162200.	.00000617
94.3	51880.	.0000193	99.3	92260.	.0000108	104.3	164100.	.00000610
94.4	52480.	.0000191	99.4	93330.	.0000107	104.4	166000.	.00000603
94.5	53090.	.0000188	99.5	94410.	.0000106	104.5	167900.	.00000596
94.6	53700.	.0000186	99.6	95500.	.0000105	104.6	169800.	.00000589
94.7	54330.	.0000184	99.7	96610.	.0000103	104.7	171800.	.00000582
94.8	54950.	.0000182	99.8	97720.	.0000102	104.8	173800.	.00000575
94.9	55590.	.0000180	99.9	98860.	.0000101	104.9	175800.	.00000569
95.0	56230.	.0000178	100.0	100000.	.0000100	105.0	177800.	.00000562

TABLES OF USEFUL EXPONENTIAL AND HYPERBOLIC FUNCTIONS

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
.001	.00011513	1.00011514	.9998849	.00011513	1.00000000663	.00011513
.002	.00023026	1.00023029	.9997697	.00023026	1.00000002651	.00023026
.003	.00034539	1.00034545	.9996545	.0003454	1.00000005965	.0003454
.004	.00046052	1.000460	.999540	.0004605	1.000000106	.0004605
.005	.00057565	1.000576	.999424	.0005757	1.000000166	.0005757
.006	.00069078	1.000691	.999309	.0006908	1.000000239	.0006908
.007	.00080591	1.000806	.999194	.0008059	1.000000325	.0008059
.008	.00092104	1.000921	.999079	.0009210	1.000000424	.0009210
.009	.0010362	1.00104	.998964	.001036	1.000000537	.001036
.010	.0011513	1.00115	.998849	.001151	1.000000663	.001151
.015	.0017270	1.00173	.998275	.001727	1.000001441	.001727
.020	.0023026	1.00231	.997700	.002303	1.000002650	.002303
.025	.0028783	1.00288	.997126	.002878	1.00000414	.002878
.030	.0034539	1.00346	.996552	.003454	1.00000596	.003454
.035	.0040296	1.00404	.995978	.004030	1.00000812	.004030
.040	.0046052	1.00462	.995405	.004605	1.00001060	.004605
.045	.0051809	1.00519	.994833	.005181	1.00001342	.005181
.050	.0057565	1.00577	.994260	.005757	1.00001657	.005756
.055	.0063322	1.00635	.993688	.006332	1.00002005	.006332
.060	.0069078	1.00693	.993116	.006908	1.00002386	.006908
.065	.0074835	1.00751	.992545	.007484	1.0000280	.007483
.070	.0080591	1.00809	.991973	.008059	1.0000325	.008059
.075	.0086348	1.00867	.991403	.008635	1.0000373	.008635
.080	.0092104	1.00925	.990832	.009211	1.0000424	.009210
.085	.0097861	1.00983	.990262	.009786	1.0000478	.009786
.090	.0103617	1.01042	.989692	.010362	1.0000537	.010361
.095	.0109374	1.01100	.989122	.010938	1.0000598	.010937
.100	.0115125	1.01158	.988553	.011513	1.0000663	.011512
.105	.0120887	1.01216	.987984	.012089	1.0000731	.012088
.110	.0126643	1.01274	.987416	.012665	1.0000802	.012664
.115	.0132400	1.01333	.986848	.013240	1.0000877	.013239
.120	.0138156	1.01391	.986280	.013816	1.0000954	.013815
.125	.0143913	1.01450	.985712	.014392	1.0001036	.014390
.130	.0149669	1.01508	.985145	.014967	1.0001120	.014966
.135	.0155426	1.01566	.984578	.015543	1.0001208	.015541
.140	.0161182	1.01625	.984011	.016119	1.0001299	.016117
.145	.0166939	1.01683	.983446	.016695	1.0001393	.016692
.150	.0172695	1.01742	.982881	.017270	1.0001491	.017267
.155	.0178452	1.01800	.982313	.017846	1.0001592	.017843
.160	.0184208	1.01859	.981748	.018422	1.0001697	.018419
.165	.0189965	1.01918	.981183	.018998	1.0001804	.018994
.170	.0195721	1.01977	.980618	.019573	1.0001915	.019570
.175	.0201478	1.02035	.980054	.020149	1.000203	.020145
.180	.0207234	1.02094	.979490	.020725	1.000215	.020720
.185	.0212991	1.02153	.978926	.021301	1.000227	.021296
.190	.0218747	1.02212	.978363	.021876	1.000239	.021871
.195	.0224504	1.02276	.977800	.022452	1.000252	.022446

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
.200	.0230260	1.02329	.977237	.023028	1.000265	.023022
.205	.0236017	1.02388	.976675	.023604	1.000279	.023597
.210	.0241773	1.02447	.976113	.024180	1.000292	.024173
.215	.0247530	1.02506	.975551	.024756	1.000306	.024748
.220	.0253286	1.02565	.974990	.025331	1.000321	.025323
.225	.0259043	1.02624	.974429	.025907	1.000335	.025899
.230	.0264800	1.02683	.973868	.026483	1.000351	.026474
.235	.C270556	1.02742	.973308	.027059	1.000366	.027049
.240	.0276312	1.02802	.972747	.027635	1.000382	.027624
.245	.0282069	1.02861	.972187	.028211	1.000398	.028199
.250	.0287825	1.02920	.971628	.028787	1.000414	.028775
.255	.0293582	1.02981	.971069	.029362	1.000431	.029350
.260	.0299338	1.03039	.070510	.029938	1.000448	.029925
.265	.0305095	1.03098	.969952	.030514	1.000465	.030500
.270	.0310851	1.03157	.969393	.031090	1.000483	.031075
.275	.0316608	1.03217	.968835	.031666	1.000501	.031650
.280	.0322364	1.03276	.968278	.032242	1.000520	.032225
.285	.0328121	1.03336	.967723	.032818	1.000538	.032800
.290	.0333877	1.03395	.967164	.033394	1.000557	.033375
.295	.0339634	1.03455	.966607	.033970	1.000577	.033950
.300	.0345390	1.03514	.966051	.034546	1.000596	.034525
.305	.0351147	1.03574	.965495	.035122	1.000617	.035100
.310	.0356903	1.03633	.964939	.035698	1.000637	.035675
.315	.0362660	1.03693	.964384	.036274	1.000658	.036250
.320	.0368416	1.03753	.963829	.036850	1.000679	.036825
.325	.0374173	1.03813	.963274	.037426	1.000700	.037400
.330	.0379929	1.03872	.962720	.038002	1.000722	.037975
.335	.0385686	1.03932	.962166	.038578	1.000746	.038549
.340	.0391442	1.03992	.961612	.039154	1.000766	.039124 .
.345	.0397199	1.04052	.961059	.039730	1.000789	.039699
.350	.0402955	1.04112	.960506	.040306	1.000812	.040274
.355	.0408712	1.04172	.959953	.040883	1.000835	.040849
.360	.0414468	1.04232	.959401	.041459	1.000859	.041423
.365	.0420225	1.04292	.958848	.042035	1.000883	.041998
.370	.0425981	1.04352	.958297	.042611	1.000907	.042572
.375	.0431738	1.04412	.957745	.043187	1.000932	.043147
.380	.0437494	1.04472	.957194	.043763	1.000957	.043722
.385	.0443251	1.04532	.956643	.044340	1.000982	.044296
.390	.0449007	1.04592	.956093	.044916	1.001008	.044871
.395	.0454764	1.04653	.955541	.045492	1.001034	.04544⁵

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
400	.0460517	1.04713	.954993	.046068	1.001060	.046020
.405	.0466277	1.04773	.954443	.046646	1.001087	.046595
.410	.0472033	1.04833	.953894	.047221	1.001114	.047168
.415	.0477790	1.04894	.953345	.047797	1.001141	.047743
.420	.0483546	1.04954	.952796	.048373	1.001169	.048317
.425	.0489303	1.05015	.952248	.048950	1.001197	.048891
.430	.0495059	1.05075	.951700	.049526	1.001225	.049466
.435	.0500816	1.05136	.951152	.050103	1.001254	.050040
.440	.0506572	1.05196	.950605	.050679	1.001283	.050614
.445	.0512329	1.05257	.950058	.051255	1.001312	.051188
.450	.0518085	1.05317	.949511	.051832	1.001342	.051762
.455	.0523842	1.05378	.948965	.052408	1.001372	.052336
.460	.0529598	1.05439	.948419	.052985	1.001402	.052910
.465	.0535355	1.05499	.947873	.053561	1.001433	.053484
.470	.0541111	1.05560	.947327	.054138	1.001464	.054058
.475	.0546868	1.05621	.946782	.054714	1.001495	.054632
.480	.0552624	1.05682	.946237	.055291	1.001527	.055206
.485	.0558381	1.05743	.945695	.055867	1.001559	.055780
.490	.0564137	1.058035	.945149	.056444	1.001591	.056354
.495	.0569894	1.05864	.944605	.057020	1.001624	.056928
.500	.0575650	1.05926	.944061	.057597	1.001657	.057501
.505	.0581407	1.05986	.943518	.058174	1.001691	.058075
.510	.0587163	1.06047	.942976	.058750	1.001724	.058649
.515	.0592920	1.06108	.942432	.059327	1.001758	.059223
.520	.0598676	1.06170	.941890	.059903	1.001793	.059796
.525	.0604433	1.06231	.941347	.060480	1.001827	.060370
.530	.0610189	1.06292	.940806	.061057	1.001862	.060943
.535	.0615946	1.06353	.940264	.061634	1.001898	.061517
.540	.0621702	1.06414	.939723	.062210	1.001933	.062090
.545	.0627459	1.06476	.939183	.062787	1.001969	.062664
.550	.0633215	1.06537	.938648	.063364	1.002006	.063237
.555	.0638972	1.06598	.938102	.063941	1.002042	.063810
.560	.0644728	1.06660	.937562	.064520	1.002079	.064383
.565	.0650485	1.06721	.937022	.065094	1.002116	.064957
.570	.0656241	1.067825	.936483	.065671	1.002154	.065530
.575	.0661998	1.06844	.935944	.066248	1.002192	.066103
.580	.0667754	1.06906	.935406	.066825	1.002230	.066676
.585	.0673511	1.06967	.934867	.067402	1.002269	.067249
.590	.0679267	1.07029	.934329	.067979	1.002308	.067822
.595	.0685024	1.07090	.933792	.068556	1.002347	.068396

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
.600	.0690780	1.07152	.933254	.069133	1.002387	.068968
.605	.0696537	1.07214	.932717	.069710	1.002426	.069540
.610	.0702293	1.07276	.932180	.070287	1.002466	.070114
.615	.0708050	1.07337	.931644	.070864	1.002508	.070687
.620	.0713806	1.07399	.931108	.071441	1.002549	.071260
.625	.0719563	1.07461	.930572	.072018	1.002590	.071832
.630	.0725319	1.07523	.930036	.072596	1.002632	.072405
.635	.0731076	1.07584	.929501	.073173	1.002674	.072978
.640	.0736832	1.076465	.928967	.073750	1.002716	.073550
.645	.0742589	1.077085	.928432	.074327	1.002759	.074123
.650	.0748345	1.07771	.927897	.074904	1.002801	.074695
.655	.0754102	1.07833	.927363	.075482	1.002845	.075268
.660	.0759858	1.07895	.926830	.076059	1.002888	.075840
.665	.0765615	1.07957	.926296	.076636	1.002932	.076412
.670	.0771371	1.08019	.925763	.077213	1.002977	.076984
.675	.0777128	1.08081	.925231	.077791	1.003021	.077557
.680	.0782884	1.08143	.924698	.078368	1.003066	.078129
.685	.0788641	1.08206	.924166	.078946	1.003111	.078701
.690	.0794397	1.08268	.923634	.079523	1.003155	.079273
.695	.0800154	1.08330	.923103	.080101	1.003203	.079845
.700	.0805910	1.08393	.922572	.080678	1.003249	.080417
.705	.0811667	1.08455	.922040	.081256	1.003296	.080989
.710	.0817423	1.085175	.921510	.081833	1.003343	.081561
.715	.0823180	1.08580	.920980	.082410	1.003390	.082132
.720	.0828936	1.08643	.920450	.082988	1.003437	.082704
.725	.0834693	1.08705	.919920	.083566	1.003486	.083276
.730	.0840449	1.08768	.919390	.084144	1.003534	.083848
.735	.0846206	1.08830	.918861	.084721	1.003582	.084419
.740	.0851962	1.08893	.918332	.085299	1.003631	.084991
.745	.0857719	1.08956	.917804	.085877	1.003681	.085562
.750	.0863475	1.090185	.917276	.086455	1.003730	.086134
.755	.0869232	1.09081	.916748	.087033	1.003780	.086705
.760	.0874988	1.09144	.916220	.087611	1.003830	.087276
.765	.0880745	1.09207	.915693	.088188	1.003881	.087848
.770	.0886501	1.09270	.915166	.088766	1.003932	.088419
.775	.0892258	1.09333	.914640	.089344	1.003983	.088990
.780	.0898014	1.09396	.914113	.089922	1.004035	.089561
.785	.0903771	1.09458	.913587	.090500	1.004087	.090132
.790	.0909527	1.09522	.913061	.091078	1.004139	.090703
.795	.0915284	1.09585	.912536	.091656	1.004192	.091274

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
.800	0921040	1.09648	.912011	.092234	1.004245	.091844
.805	.0926797	1.09711	.911486	.092812	1.004298	.092415
.810	.0932553	1.09774	.910961	.093391	1.004352	.092986
.815	.0938310	1.09837	.910437	.093969	1.004405	.093557
.820	.0944066	1.09909	.909913	.094547	1.004460	.094127
.825	.0949823	1.09964	.909390	.095125	1.004514	.094698
.830	.0955579	1.10027	.908866	.095703	1.004569	.095268
.835	.0961336	1.10091	.908343	.096282	1.004624	.095839
.840	.0967092	1.10154	.907821	.096860	1.004680	.096409
.845	.0972849	1.10217	.907298	.097438	1.004736	.096979
.850	.0978605	1.10281	.906776	.098017	1.004792	.097549
.855	.0984362	1.10344	.906254	.098595	1.004849	.098119
.860	.0990118	1.10408	.905733	.099174	1.004906	.098689
.865	.0995875	1.10471	.905211	.099752	1.004963	.099260
.870	.100163	1.10535	.904690	.100331	1.005021	.099830
.875	.100739	1.10599	.904170	.100909	1.005079	.10040
.880	.101314	1.106625	.903650	.101487	1.005137	.10097
.885	.101890	1.10726	.903131	.102066	1.005195	.10154
.890	.102466	1.10790	.902610	.102645	1.005254	.10211
.895	.103041	1.10854	.902090	.103223	1.005313	.10268
.900	.103617	1.10918	.901571	.103802	1.005373	.10325
.905	.104193	1.10981	.901052	.104382	1.005433	.10382
.910	.104768	1.11045	.900534	.104960	1.005493	.10439
.915	.105344	1.11109	.900016	.105539	1.005554	.10496
.920	.105920	1.11173	.899498	.106118	1.005615	.10553
.925	.106495	1.11237	.898980	.106696	1.005676	.10609
.930	.107071	1.11301	.898463	.107276	1.005738	.10666
.935	.107647	1.11365	.897946	.107855	1.005800	.10723
.940	.108222	1.11429	.897431	.108433	1.005862	.10780
.945	.108798	1.11495	.896912	.109013	1.005924	.10837
.950	.109374	1.11558	.896396	.109592	1.005987	.10894
.955	.109949	1.11622	.895880	.110171	1.006051	.10951
.960	.110525	1.11686	.895365	.110750	1.006114	.11008
.965	.111100	1.11751	.894850	.111329	1.006178	.11065
.970	.111676	1.11815	.894335	.111908	1.006242	.11121
.975	.112252	1.11879	.893820	.112487	1.006307	.11179
.980	.112827	1.11944	.893306	.113066	1.006372	.11235
.985	.113403	1.12008	.892791	.113646	1.006437	.11292
.990	.113979	1.12073	.892278	.114226	1.006503	.11349
.995	.114554	1.12137	.891764	.114805	1.006569	.11406

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
1.00	.115130	1.12202	.891251	.115384	1.006635	.11462
1.10	.126643	1.13501	.881049	.12698	1.00803	.12597
1.20	.138156	1.14815	.870964	.13860	1.00956	.13728
1.30	.149669	1.16145	.860994	.15023	1.01122	.14856
1.40	.161182	1.17490	.851137	.16188	1.01302	.15980
1.50	.172695	1.18850	.841394	.17356	1.01495	.17099
1.60	.184208	1.20227	.831764	.18525	1.01702	.18215
1.70	.195721	1.21619	.822243	.19697	1.01921	.19326
1.8	.207234	1.23027	.812830	.20872	1.02155	.20432
1.9	.218747	1.24452	.803526	.22050	1.02402	.21532
2.0	.230260	1.25892	.794327	.23230	1.02663	.22627
2.1	.241773	1.27350	.785236	.24413	1.02937	.23717
2.2	.253286	1.28825	.776246	.25600	1.03225	.24800
2.3	.264799	1.30317	.767361	.26790	1.03527	.25878
2.4	.276312	1.31826	.758577	.27984	1.03842	.26949
2.5	.287825	1.33352	.749895	.29181	1.04171	.28013
2.6	.299338	1.34896	.741310	.30383	1.04514	.29073
2.7	.310851	1.36458	.732825	.31588	1.04870	.30121
2.8	.322364	1.38038	.724437	.32797	1.05241	.31164
2.9	.333877	1.39637	.716143	.34011	1.05626	.32200
3.0	.345390	1.41254	.707946	.35230	1.06024	.33228
3.1	.356903	1.42890	.699842	.36453	1.06437	.34248
3.2	.368416	1.44544	.691830	.37681	1.06864	.35260
3.3	.379929	1.46218	.683911	.38913	1.07305	.36265
3.4	.391442	1.47911	.676083	.40151	1.07760	.37260
3.5	.402955	1.49623	.668344	.41395	1.08229	.38245
3.6	.414468	1.51356	.660694	.42643	1.08713	.39226
3.7	.425981	1.53109	.653133	.43898	1.09211	.40195
3.8	.437494	1.54882	.645654	.45158	1.09724	.41156
3.9	.449007	1.56675	.638264	.46424	1.10251	.42108
4.0	.460520	1.58489	.630957	.47696	1.10793	.43050
4.1	.472033	1.60325	.623735	.48976	1.11349	.43984
4.2	.483546	1.62181	.616595	.50261	1.11920	.44908
4.3	.495059	1.64059	.609537	.51553	1.12506	.45823
4.4	.506572	1.65959	.602560	.52851	1.13107	.46727
4.5	.518085	1.67880	.595662	.54157	1.13723	.47623
4.6	.529598	1.69824	.588849	.55470	1.14354	.48507
4.7	.541111	1.71791	.582103	.56790	1.15001	.49383
4.8	.552624	1.73780	.575440	.58118	1.15662	.50248
4.9	.564137	1.75792	.568853	.59453	1.16339	.51104

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
5.0	.575650	1.77828	.562342	.60797	1.17031	.51949
5.1	.587163	1.79887	.555904	.62148	1.17739	.52785
5.2	.598676	1.81970	.549541	.63508	1.18462	.53610
5.3	.610189	1.84077	.543250	.64876	1.19201	.54426
5.4	.621702	1.86209	.537032	.66253	1.19956	.55231
5.5	.633215	1.88365	.530884	.67638	1.20727	.56026
5.6	.644728	1.90546	.524807	.69033	1.21513	.56810
5.7	.656241	1.92752	.518800	.70436	1.22316	.57585
5.8	.667754	1.94984	.512861	.71849	1.23135	.58350
5.9	.679267	1.97242	.506991	.73272	1.23971	.59104
6.0	.690780	1.99526	.501187	.74704	1.24823	.59848
6.1	.702293	2.01837	.495450	.76146	1.25691	.60582
6.2	.713806	2.04174	.489779	.77598	1.26576	.61306
6.3	.725319	2.06538	.484172	.79061	1.27478	.62019
6.4	.736832	2.08930	.478630	.80533	1.28396	.62723
6.5	.748345	2.11349	.473151	.82017	1.29332	.63416
6.6	.759858	2.13796	.467736	.83511	1.30285	.64099
6.7	.771371	2.16272	.462381	.85017	1.31255	.64772
6.8	.782884	2.18776	.457088	.86534	1.32243	.65436
6.9	.794397	2.21310	.451856	.88062	1.33248	.66089
7.0	.805910	2.23872	.446684	.89602	1.34270	.66733
7.1	.817423	2.26465	.441570	.91154	1.35311	.67366
7.2	.828936	2.29087	.436516	.92718	1.36369	.67990
7.3	.840449	2.31740	.431519	.94294	1.37446	.68604
7.4	.851962	2.34423	.426580	.95883	1.38540	.69209
7.5	.863475	2.37137	.421696	.97484	1.39653	.69804
7.6	.874988	2.39883	.416869	.99098	1.40785	.70389
7.7	.886501	2.42661	.412097	1.00726	1.41935	.70966
7.8	.898014	2.45471	.407380	1.02367	1.43105	.71533
7.9	.909527	2.48313	.402717	1.04021	1.44292	.72090
8.0	.921040	2.51189	.398107	1.05689	1.45500	.72639
8.1	.932553	2.54097	.393550	1.07371	1.46726	.73178
8.2	.944066	2.57040	.389045	1.09068	1.47972	.73708
8.3	.955579	2.60016	.384592	1.10779	1.49238	.74230
8.4	.967092	2.63027	.380189	1.12504	1.50523	.74742
8.5	.978605	2.66072	.375837	1.14244	1.51828	.75246
8.6	.990118	2.69153	.371535	1.16000	1.53154	.75741
8.7	1.00163	2.72270	.367282	1.17771	1.54499	.76228
8.8	1.01314	2.75423	.363078	1.19558	1.55866	.76706
8.9	1.02466	2.78612	.358922	1.21360	1.57252	.77175

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
9.0	1.03617	2.81838	.354813	1.23178	1.58660	.77637
9.1	1.04768	2.85102	.350752	1.25013	1.60089	.78090
9.2	1.05920	2.88403	.346737	1.26865	1.61539	.78535
9.3	1.07071	2.91743	.342768	1.28733	1.63010	.78973
9.4	1.08222	2.95121	.338845	1.30618	1.64503	.79402
9.5	1.09374	2.98538	.334965	1.32521	1.66018	.79824
9.6	1.10525	5.01995	.331131	1.34441	1.67554	.80237
9.7	1.11676	3.05492	.327341	1.36379	1.69113	.80644
9.8	1.12827	3.09030	.323593	1.38335	1.70695	.81043
9.9	1.13979	3.12608	.319890	1.40310	1.72299	.81434
10.0	1.15130	3.16228	.316228	1.42303	1.73925	.81818
10.1	1.16281	3.19890	.312608	1.44315	1.75575	.82195
10.2	1.17433	3.23593	.309030	1.463452	1.772482	.825651
10.3	1.18584	3.27341	.305492	1.483957	1.789449	.829282
10.4	1.19735	3.31131	.301995	1.504657	1.806653	.832839
10.5	1.20887	3.34965	.298538	1.525558	1.824096	.836336
10.6	1.22038	3.38845	.295121	1.546662	1.841783	.839763
10.7	1.23189	3.42768	.291743	1.567967	1.859710	.843124
10.8	1.24340	3.46737	.288403	1.589483	1.877886	.846421
10.9	1.25492	3.50752	.285102	1.611207	1.896309	.849654
11.0	1.26643	3.54813	.281838	1.633146	1.914984	.852825
11.1	1.27794	3.58922	.278612	1.655306	1.933918	.855934
11.2	1.28946	3.63078	.275423	1.677677	1.953106	.858979
11.3	1.30097	3.67282	.272270	1.700276	1.972546	.861970
11.4	1.31248	3.71535	.269153	1.723099	1.992252	.864900
11.5	1.32400	3.75837	.266072	1.746150	2.012222	.867772
11.6	1.33551	3.80189	.263027	1.769434	2.032461	.870587
11.7	1.34702	3.84592	.260016	1.792952	2.052968	.873345
11.8	1.35853	3.89045	.257040	1.816705	2.073745	.876050
11.9	1.37005	3.93550	.254097	1.840702	2.094799	.878701
12.0	1.38156	3.98107	.251189	1.864943	2.116131	.881298
12.1	1.39307	4.02717	.248313	1.889427	2.137740	.883843
12.2	1.40459	4.07380	.245471	1.914157	2.159628	.886336
12.3	1.41610	4.12097	.242661	1.939156	2.181817	.888780
12.4	1.42761	4.16869	.239883	1.964405	2.204288	.891174
12.5	1.43913	4.21696	.237137	1.989913	2.227050	.893520
12.6	1.45064	4.26580	.234423	2.015686	2.250109	.895817
12.7	1.46215	4.31519	.231740	2.041724	2.273464	.898067
12.8	1.47366	4.36516	.229087	2.068038	2.297125	.900272
12.9	1.48518	4.41570	.226465	2.094620	2.321085	.902431

DB	Nepers = A	e^A	e^-A	Sinh A	Cosh A	Tanh A
13.0	1.49670	4.46684	.223872	2.121482	2.345354	.904547
13.1	1.50820	4.51856	.221310	2.148626	2.369936	.906618
13.2	1.51972	4.57088	.218776	2.176054	2.394830	.908647
13.3	1.53123	4.62381	.216272	2.203768	2.420040	.910633
13.4	1.54274	4.67736	.213796	2.231780	2.445576	.912578
13.5	1.55426	4.73151	.211349	2.260081	2.471431	.914485
13.6	1.56577	4.78630	.208930	2.288684	2.497614	.916348
13.7	1.57728	4.84172	.206538	2.317592	2.524130	.918175
13.8	1.58879	4.89779	.204174	2.346832	2.550956	.919981
13.9	1.60031	4.95450	.201837	2.376331	2.578169	.921713
14.0	1.61182	5.01187	.199526	2.406174	2.605700	.923427
14.1	1.62333	5.06991	.197242	2.436333	2.633575	.925105
14.2	1.63485	5.12861	.194984	2.466814	2.661798	.926747
14.3	1.64636	5.18800	.192752	2.497624	2.690376	.928355
14.4	1.65787	5.24807	.190546	2.528763	2.719309	.929929
14.5	1.66939	5.30884	.188365	2.560239	2.748604	.931469
14.6	1.68090	5.37032	.186209	2.592056	2.778265	.932977
14.7	1.69241	5.43250	.184077	2.624212	2.808289	.934452
14.8	1.70392	5.49541	.181970	2.656718	2.838688	.935896
14.9	1.71544	5.55904	.179887	2.689576	2.869463	.937310
15.0	1.72695	5.62342	.177828	2.722782	2.900622	.938691
15.1	1.73846	5.68853	.175792	2.756341	2.932133	.940046
15.2	1.74998	5.75440	.173780	2.790310	2.964090	.941372
15.3	1.76149	5.82103	.171791	2.824618	2.996409	.942668
15.4	1.77300	5.88843	.169824	2.859305	3.029129	.943936
15.5	1.78452	5.95662	.167880	2.894371	3.062251	.945177
15.6	1.79603	6.02560	.165959	2.929819	3.095778	.946392
15.7	1.80754	6.09537	.164059	2.965652	3.129715	.947579
15.8	1.81905	6.16595	.162181	3.001886	3.164067	.948743
15.9	1.83057	6.23735	.160325	3.038510	3.198834	.949880
16.0	1.84208	6.30957	.158489	3.075539	3.234026	.950994
16.1	1.85359	6.38264	.156675	3.112979	3.269654	.952082
16.2	1.86511	6.45654	.154882	3.150828	3.305720	.953144
16.3	1.87662	6.53133	.153109	3.189112	3.342221	.954189
16.4	1.88813	6.60694	.151356	3.227792	3.379148	.955209
16.5	1.89965	6.68344	.149623	3.266912	3.416535	.956206
16.6	1.91116	6.76083	.147911	3.306459	3.454370	.957181
16.7	1.92267	6.81911	.146218	3.346446	3.492664	.958133
16.8	1.93418	6.91830	.144544	3.386879	3.531423	.959069
16.9	1.94570	6.99842	.142890	3.427765	3.570655	.959982

DB	Nepers = A	e^A	e^-A	Sinh A	Cosh A	Tenh A
17.0	1.95721	7.07946	.141254	3.469103	3.610357	.960875
17.1	1.96872	7.16143	.139637	3.510895	3.650532	.961749
17.2	1.98024	7.24437	.138038	3.553165	3.691203	.962604
17.3	1.99175	7.32825	.136458	3.595896	3.732354	.963440
17.4	2.00326	7.41310	.134896	3.639103	3.774000	.964258
17.5	2.01478	7.49895	.133352	3.682798	3.816150	.965056
17.6	2.02629	7.58577	.131826	3.726968	3.858794	.965838
17.7	2.03780	7.67361	.130317	3.771649	3.901966	.966602
17.8	2.04931	7.76246	.128825	3.816820	3.945645	.967350
17.9	2.06083	7.85236	.127350	3.862507	3.989857	.968082
18.0	2.07234	7.94327	.125892	3.908691	4.034583	.968797
18.1	2.08385	8.03526	.124452	3.955404	4.079856	.969496
18.2	2.09537	8.12830	.123027	4.002638	4.125665	.970180
18.3	2.10688	8.22243	.121619	4.050408	4.172027	.970849
18.4	2.11839	8.31764	.120227	4.098704	4.218931	.971503
18.5	2.12991	8.41394	.118850	4.147546	4.266396	.972143
18.6	2.14142	8.51137	.117490	4.196942	4.314432	.972768
18.7	2.15293	8.60994	.116145	4.246898	4.363043	.973380
18.8	2.16444	8.70964	.114815	4.297413	4.412228	.973978
18.9	2.17596	8.81049	.113501	4.348495	4.461996	.974562
19.0	2.18747	8.91251	.112202	4.400154	4.512356	.975134
19.1	2.19898	9.01571	.110918	4.452395	4.563312	.975694
19.2	2.21050	9.12011	.109648	4.505229	4.614878	.976241
19.3	2.22201	9.22572	.108393	4.558665	4.667058	.976775
19.4	2.23352	9.33254	.107152	4.612690	4.719842	.977298
19.5	2.24504	9.44061	.105926	4.667341	4.773267	.977808
19.6	2.25655	9.54993	.104713	4.722610	4.827323	.978308
19.7	2.26806	9.66051	.103514	4.778499	4.882013	.978797
19.8	2.27957	9.77237	.102329	4.835029	4.937348	.979275
19.9	2.29109	9.88553	.101158	4.892183	4.993341	.979741
20.0	2.30260	10.00000	.100000	4.950000	5.050000	.980198
20.1	2.31411	10.11579	.098855	5.00847	5.10733	.980644
20.2	2.32563	10.23292	.097724	5.06760	5.16532	.981087
20.3	2.33714	10.35143	.096605	5.12741	5.22402	.981507
20.4	2.34865	10.47128	.095499	5.18789	5.28339	.981924
20.5	2.36017	10.59255	.094406	5.24907	5.34348	.982332
20.6	2.37168	10.71519	.093325	5.31093	5.40426	.982730
20.7	2.38319	10.83928	.092257	5.37351	5.46577	.983120
20.8	2.39470	10.96478	.091201	5.43679	5.52799	.983502
20.9	2.40622	11.09175	.090157	5.50079	5.59095	.983874

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
21.0	2.41773	11.22018	.089125	5.56553	5.65466	.984239
21.1	2.42924	11.35014	.088105	5.63102	5.71913	.984594
21.2	2.44076	11.48153	.087096	5.69722	5.78432	.984942
21.3	2.45227	11.61449	.086099	5.76420	5.85029	.985274
21.4	2.46378	11.74897	.085114	5.83193	5.91704	.985616
21.5	2.47530	11.88503	.084139	5.90045	5.98459	..985941
21.6	2.48681	12.02265	.083176	5.96974	6.05292	.986258
21.7	2.49832	12.16186	.082224	6.03982	6.12204	.986572
21.8	2.50983	12.30269	.081283	6.11070	6.19199	.986873
21.9	2.52135	12.44516	.080353	6.18241	6.26276	.987170
22.0	2.53286	12.58924	.079433	6.25491	6.33434	.987460
22.1	2.54437	12.73503	.078524	6.32825	6.40678	.987743
22.2	2.55589	12.88250	.077625	6.40244	6.48006	.988018
22.3	2.56740	13.03168	.0767361	6.47747	6.55421	.988290
22.4	2.57891	13.18257	.0758577	6.55336	6.62921	.988557
22.5	2.59043	13.33522	.0749895	6.63012	6.70511	.988816
22.6	2.60194	13.48963	.0741310	6.70775	6.78188	.989064
22.7	2.61345	13.64583	.0732825	6.78628	6.85956	.989317
22.8	2.62496	13.80384	.0724437	6.86570	6.93814	.989559
22.9	2.63648	13.96370	.0716143	6.94605	7.01766	.989796
23.0	2.64799	14.12537	.0707946	7.02729	7.09808	.990027
23.1	2.65950	14.28895	.0699842	7.10949	7.17947	.990252
23.2	2.67102	14.45440	.0691830	7.19261	7.26179	.990473
23.3	2.68253	14.62178	.0683911	7.27670	7.34509	.990689
23.4	2.69404	14.79109	.0676083	7.36174	7.42935	.990900
23.5	2.70556	14,96234	.0668344	7.44776	7.51459	.991107
23.6	2.71707	15.13561	.0660694	7.53477	7.60084	.991308
23.7	2.72858	15.31088	.0653133	7.62279	7.68810	.991504
23.8	2.74009	15.48818	.0645654	7.71181	7.77638	.991697
23.9	2.75161	15.66751	.0638264	7.80185	7.86567	.991886
24.0	2.76312	15.84893	.0630958	7.89282	7.95592	.992069
24.1	2.77463	16.03245	.0623735	7.98504	8.04741	.992250
24.2	2.78615	16.21810	.0616595	8.07822	8.13988	.992425
24.3	2.79766	16.40590	.0609537	8.17247	8.23343	.992597
24.4	2.80917	16.59588	.0602560	8.26781	8.32807	.992765
24.5	2.82069	16.78803	.0595662	8.36424	8.42380	.992930
24.6	2.83220	16.98243	.0588843	8.46178	8.52066	.993090
24.7	2.84371	17.17910	.0582103	8.56045	8.61866	.993246
24.8	2.85522	17.37800	.0575440	8.66023	8.71777	.993400
24.9	2.86674	17.57923	.0568853	8.76118	8.81806	.993550

DB	Nepers = A	e^{A}	e^{-A}	Sinh A	Cosh A	Tanh A
25.0	2.87825	17.78279	.0562342	8.86328	8.91951	.993696
25.1	2.88976	17.98872	.0555904	8.96657	9.02216	.993839
25.2	2.90128	18.19702	.0549541	9.07104	9.12599	.993979
25.3	2.91279	18.40772	.0543250	9.17670	9.23103	.994114
25.4	2.92430	18.62087	.0537032	9.28358	9.33729	.994249
25.5	2.93582	18.83649	.0530884	9.39170	9.44479	.994378
25.6	2.94733	19.05461	.0524807	9.50106	9.55354	.994507
25.7	2.95884	19.27524	.0518800	9.61163	9.66352	.994632
25.8	2.97035	19.49843	.0512861	9.72357	9.77486	.994753
25.9	2.98187	19.72423	.0506991	9.83676	9.88746	.994872
26.0	2.99338	19.95262	.0501187	9.95125	10.00137	.994988
26.1	3.00489	20.18368	.0495450	10.06707	10.11662	.995102
26.2	3.01641	20.41737	.0489779	10.18420	10.23318	.995214
26.3	3.02792	20.65381	.0484172	10.30270	10.35112	.995322
26.4	3.03943	20.89298	.0478630	10.42256	10.47042	.995427
26.5	3.05095	21.13490	.0473151	10.54379	10.59111	.995532
26.6	3.06246	21.37962	.0467736	10.66642	10.71320	.995634
26.7	3.07397	21.62718	.0462381	10.79047	10.83671	.995733
26.8	3.08548	21.87763	.0457088	10.91596	10.96167	.995830
26.9	3.09700	22.13097	.0451856	11.04289	11.08808	.995924
27.0	3.10851	22.38722	.0446684	11.17128	11.21595	.996017
27.1	3.12002	22.64646	.0441570	11.30115	11.34531	.996108
27.2	3.13154	22.90869	.0436516	11.43252	11.47617	.996196
27.3	3.14305	23.17396	.0431519	11.56541	11.60856	.996283
27.4	3.15456	23.44227	.0426578	11.69981	11.74247	.996367
27.5	3.16608	23.71372	.0421696	11.83578	11.87795	.996450
27.6	3.17759	23.98834	.0416869	11.97333	12.01502	.996530
27.7	3.18910	24.26609	.0412097	12.11244	12.15365	.996609
27.8	3.20061	24.54710	.0407380	12.25318	12.29392	.996686
27.9	3.21213	24.83131	.0402717	12.39552	12.43579	.996762
28.0	3.22364	25.11887	.0398107	12.53953	12.57934	.996835
28.1	3.23515	25.40971	.0393550	12.68518	12.72454	.996907
28.2	3.24667	25.70396	.0389045	12.83253	12.87143	.996978
28.3	3.25818	26.00162	.0384592	12.98158	13.02004	.997046
28.4	3.26969	26.30267	.0380189	13.13233	13.17035	.997113
28.5	3.28121	26.60723	.0375837	13.28483	13.32241	.997179
28.6	3.29272	26.91534	.0371535	13.43910	13.47625	.997243
28.7	3.30423	27.22704	.0367282	13.59516	13.63189	.997306
28.8	3.31574	27.54229	.0363078	13.75299	13.78930	.997367
28.9	3.32726	27.86122	.0358922	13.91267	13.94856	.997427

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
29.0	3.33877	28.18383	.0354813	14.07418	14.10966	.997485
29.1	3.35028	28.51020	.0350752	14.23756	14.27264	.997542
29.2	3.36180	28.84033	.0346737	14.40283	14.43750	.997599
29.3	3.37331	29.17429	.0342768	14.57001	14.60429	.997653
29.4	3.38482	29.51211	.0338844	14.73912	14.77300	.997707
29.5	3.39634	29.85384	.0334965	14.91017	14.94367	.997758
29.6	3.40785	30.19951	.0331131	15.08320	15.11631	.997810
29.7	3.41936	30.54922	.0327341	15.25825	15.29098	.997860
29.8	3.43087	30.90296	.0323594	15.43530	15.46766	.997908
29.9	3.44239	31.26079	.0319890	15.61440	15.64639	.997955
30.0	3.45390	31.62278	.0316228	15.79558	15.82720	.998002
30.2	3.47693	32.35937	.0309030	16.16423	16.19514	.998091
30.4	3.49995	33.11311	.0301995	16.54147	16.57167	.998178
30.6	3.52298	33.88445	.0295121	16.92747	16.95698	.998260
30.8	3.54600	34.67368	.0288403	17.32242	17.35126	.998338
31.0	3.56903	35.48134	.0281838	17.72658	17.75476	.998413
31.2	3.59206	36.30781	.0275423	18.14014	18.16768	.998484
31.4	3.61508	37.15352	.0269153	18.56330	18.59022	.998552
31.6	3.63811	38.01894	.0263027	18.99633	19.02263	.999617
31.8	3.66113	38.90451	.0257040	19.43940	19.46510	.998680
32.0	3.68416	39.81072	.0251188	19.89281	19.91793	.998739
32.2	3.70719	40.73803	.0245471	20.35674	20.38129	.998795
32.4	3.73021	41.68694	.0239883	20.83148	20.85546	.998850
32.6	3.75324	42.65795	.0234423	21.31725	21.34069	.998902
32.8	3.77626	43.65159	.0229087	21.81436	21.83727	.998951
33.0	3.79929	44.66836	.0223872	22.32298	22.34537	.998998
33.2	3.82232	45.70882	.0218776	22.84348	22.86536	.999043
33.4	3.84534	46.77355	.0213796	23.37607	23.39745	.999086
33.6	3.86837	47.86301	.0208930	23.92106	23.94195	.999127
33.8	3.89139	48.97789	.0204174	24.47873	24.49915	.999167
34.0	3.91442	50.11874	.0199526	25.04940	25.06935	.999204
34.2	3.93745	51.28612	.0194984	25.63331	25.65281	.999240
34.4	3.96047	52.48072	.0190546	26.23084	26.24989	.999276
34.6	3.98350	53.70319	.0186209	26.84229	26.86091	.999307
34.8	4.00652	54.95405	.0181970	27.46793	27.48613	.999338
35.0	4.02955	56.23416	.0177828	28.10819	28.12597	.999368
35.2	4.05258	57.54400	.0173780	28.76331	28.78069	.999396
35.4	4.07560	58.88433	.0169824	29.43368	29.45066	.999423
35.6	4.09863	60.25597	.0165959	30.11968	30.13629	.999449
35.8	4.12165	61.65952	.0162181	30.82165	30.83787	.999474

DB	Nepers = A	e^A	e^-A	Sinh A	Cosh A	Tanh A
36.0	4.14468	63.09565	.0158489	31.53990	31.55575	.999498
36.2	4.16771	64.56537	.0154882	32.27494	32.29043	.999520
36.4	4.19073	66.06939	.0151356	33.02712	33.04227	.999542
36.6	4.21376	67.60829	.0147911	33.79675	33.81154	.999563
36.8	4.23678	69.18302	.0144544	34.58429	34.59874	.998582
37.0	4.25981	70.79459	.0141254	35.39017	35.40442	.999601
37.2	4.28284	72.44367	.0138038	36.21493	36.22874	.999619
37.4	4.30586	74.13102	.0134896	37.05877	37.07226	.999636
37.6	4.32889	75.85772	.0131826	37.92227	37.93545	.999653
37.8	4.35191	77.62464	.0128825	38.80588	38.81876	.999668
38.0	4.37494	79.43273	.0125992	39.71007	39.72266	.999683
38.2	4.39797	81.28302	.0123027	40.63536	40.64766	.999697
38.4	4.42099	83.17635	.0120227	41.58217	41.59419	.999711
38.6	4.44402	85.11373	.0117490	42.55099	42.56274	.999724
38.8	4.46704	87.09640	.0114815	43.54246	43.55394	.999736
39.0	4.49007	89.12510	.0112202	44.55694	44.56816	.999748
39.2	4.51310	91.20108	.0109648	45.59504	45.60600	.999760
39.4	4.53612	93.32543	.0107152	46.65730	46.66802	.999770
39.6	4.55915	95.49926	.0104713	47.74440	47.75487	.999781
39.8	4.58217	97.72373	.0102329	48.85675	48.86698	.999791
40.0	4.60520	100.0000	.0100000	49.99500	50.0050	.999800
40.2	4.62823	102.3292	.0097724	51.1597	51.1695	.999810
40.4	4.65125	104.7128	.0095499	52.3517	52.3612	.999819
40.6	4.67428	107.1520	.0093325	53.5714	53.5807	.999826
40.8	4.69730	109.6478	.0091201	54.8194	54.8285	.999834
41.0	4.72033	112.2018	.0089125	56.0965	56.1054	.999841
41.2	4.74336	114.8153	.0087096	57.4033	57.4120	.999848
41.4	4.76638	117.4897	.0085114	58.7406	58.7491	.999855
41.6	4.78941	120.2264	.0083176	60.1091	60.1174	.999862
41.8	4.81243	123.0269	.0081283	61.5094	61.5175	.999868
42.0	4.83546	125.8924	.0079433	62.9423	62.9502	.999875
42.2	4.85849	128.8250	.0077625	64.4086	64.4169	.999880
42.4	4.88151	131.8258	.0075858	65.9091	65.9167	.999885
42.6	4.90454	134.8963	.0074131	67.4478	67.4553	.999889
42.8	4.92756	138.0384	.0072444	69.0156	69.0228	.999895
43.0	4.95059	141.2538	.0070795	70.6233	70.6304	.999900
43.2	4.97362	144.5440	.0069183	72.2686	72.2755	.999905
43.4	4.99664	147.9109	.0067608	73.9521	73.9589	.999908
43.6	5.01967	151.3561	.0066069	75.6748	75.6814	.999912
43.8	5.04270	154.8817	.0064565	77.4376	77.4441	.999916
44.0	5.06572	158.4893	.0063096	79.2406	79.2469	.999920

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
44.2	5.08875	162.1810	.0061660	81.0874	81.0936	.999924
44.4	5.11177	165.9588	.0060256	82.9764	82.9824	.999928
44.6	5.13480	169.8243	.0058884	84.9092	84.9151	.999931
44.8	5.15782	173.7800	.0057544	86.8871	86.8929	.999936
45.0	5.18085	177.8279	.0056234	88.9112	88.9167	.999937
45.2	5.20388	181.9701	.0054954	90.9823	90.9878	.999940
45.4	5.22690	186.2087	.0053703	93.1016	93.1070	.999942
45.6	5.24993	190.5461	.0052481	95.2705	95.2757	.999945
45.8	5.27295	194.9843	.0051286	97.4896	97.4947	.999948
46.0	5.29598	199.5262	.0050119	99.7606	99.7655	.999950
46.2	5.31901	204.1737	.0048978	102.0844	102.0893	.999952
46.4	5.34203	208.9298	.0047863	104.4625	104.4673	.999954
46.6	5.36506	213.7962	.0046774	106.8957	106.9004	.999956
46.8	5.38808	218.7763	.0045709	109.3859	109.3905	.999958
47.0	5.41111	223.8722	.0044668	111.9339	111.9384	.999959
47.2	5.43414	229.0869	.0043652	114.5413	114.5457	.999961
47.4	5.45716	234.4227	.0042658	117.2092	117.2135	.999963
47.6	5.48019	239.8834	.0041687	119.9396	119.9438	.999965
47.8	5.50321	245.4710	.0040738	122.7335	122.7376	.999967
48.0	5.52624	251.1887	.0039811	125.5923	125.5963	.999968
48.2	5.54927	257.0396	.0038905	128.5179	128.5218	.999970
48.4	5.57229	263.0267	.0036019	131.5115	131.5153	.999971
48.6	5.59532	269.1534	.0037154	134.5749	134.5786	.999973
48.8	5.61834	275.4229	.0036308	137.7125	137.7096	.999974
49.0	5.64137	281.8383	.0035481	140.9174	140.9209	.999975
49.2	5.66440	288.4033	.0034674	144.1999	144.2034	.999976
49.4	5.68742	295.1211	.0033884	147.5589	147.5623	.999977
49.6	5.71045	301.9951	.0033113	150.9959	150.9992	.999978
49.8	5.73347	309.0296	.0032359	154.5134	154.5166	.999979
50.0	5.75650	316.2278	.0031623	158.1123	158.1155	.999980
50.2	5.77953	323.5937	.0030903	161.7951	161.7982	.999981
50.4	5.80255	331.1311	.0030200	165.5641	165.5671	.999982
50.6	5.82558	338.8445	.0029512	169.4208	169.4236	.999983
50.8	5.84860	346.7368	.0028840	173.3670	173.3700	.999984
51.0	5.87163	354.8134	.0028184	177.4051	177.4079	.999984
51.2	5.89466	363.0781	.0027543	181.5377	181.5405	.999985
51.4	5.91768	371.5352	.0026915	185.7662	185.7689	.999986
51.6	5.94071	380.1894	.0026303	190.0935	190.0961	.999986
51.8	5.96373	389.0451	.0025704	194.5212	194.5238	.999987
52.0	5.98676	398.1072	.0025119	199.0524	199.0549	.999987

DB	Nepers = A	e^A	e^{-A}	Sinh A	Cosh A	Tanh A
52.2	6.00979	407.3803	.0024547	203.6889	203.6914	.999988
52.4	6.03281	416.8694	.0023988	208.4334	208.4358	.999988
52.6	6.05584	426.5795	.0023442	213.2886	213.2909	.999989
52.8	6.07886	436.5159	.0022909	218.2570	218.2593	.9999895
53.0	6.10189	446.6836	.0022387	223.3407	223.3429	.9999901
53.2	6.12492	457.0882	.0021878	228.5431	228.5453	.9999905
53.4	6.14794	467.7355	.0021380	233.8667	233.8688	.9999910
63.6	6.17097	478.6301	.0020893	239.3138	239.3159	.9999914
53.8	6.19399	489.7789	.0020417	244.8884	244.8904	.9999917
54.0	6.21702	501.1874	.0019953	250.5927	250.5947	.9999921
54.2	6.24005	512.8612	.0019498	256.4297	256.4316	.9999925
54.4	6.26307	524.8072	.0019055	262.4027	262.4046	.9999927
54.6	6.28610	537.0319	.0018621	268.5151	268.5170	.9999930
54.8	6.30912	549.5405	.0018197	274.7694	274.7712	.9999934
55.0	6.33215	562.3416	.0017783	281.1699	281.1717	.9999936

Note:

For larger values of DB, the corresponding values of e^A or e^{-A} may be obtained by moving the decimal point to the right or left one point for each 20 DB. For example, corresponding to 75.0 DB, e^A = 5623.416 and e^{-A} = .00017783.

Sinh A and Cosh A may then be obtained from the rigorous relations:

$$\text{Sinh A} = \frac{e^A}{2} - \frac{e^{-A}}{2}$$

$$\text{Cosh A} = \frac{e^A}{2} + \frac{e^{-A}}{2}$$

or from the approximate relationship

$$\text{Sinh A} \doteq \text{Cosh A} \doteq \frac{e^A}{2}$$

$$\text{Tanh A} = \frac{\text{Sinh A}}{\text{Cosh A}} \doteq 1 - 2e^{-2A}$$